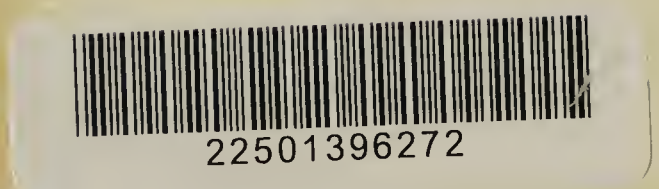
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ORIGINAL LECTURES.

LECTURES

ON

THE MINUTE ANATOMY OF THE LIVER.

DELIVERED AT

King's College, during the Winter Session, 1855-56.

By LIONEL S. BEALE, M.B.,
Physician to King's College Hospital, and Professor of Physiology and General and Morbid Anatomy in King's College, London.

Lecture V.

Contents of the Tubular Network of Basement Membrane—Cells—Oil Globules, Granular Matter, Coloured Particles—Of the manner in which the Cells are arranged within the Tubular Membrane—Of the ultimate ramifications of the Ducts, and of their connexion with the Cell-containing Network—Anastomoses of the Ducts—Interlobular Network of Ducts—Of the finest Branches of the Duct, and of their connexion with the Secreting Structure—In Mammalia—In Birds—In Reptiles—In Fishes.

Contents of the Tubular Network of Basement Membrane.—The most important anatomical elements contained in the tubular network of basement membrane are the *liver cells;* but, besides these, a certain quantity of free granular matter is always present, and not unfrequently oil globules, and granules of dark yellow colouring matter, are met with. In disease it is not unusual to find the network occupied by a viscid, granular, highly refractive mass, in which only a few nuclei can be observed. Sometimes the network is so shrunken as not to be more than half the diameter of an ordinary healthy hepatic cell, and its contents appear to consist of a viscid material, in which are suspended granules and oil globules. In fishes generally, the tubular network seems to be entirely occupied by a mass of oil globules, but with care nuclei may sometimes be distinguished among them.

Cells.—The liver cell varies much in form and size in different animals, and in the liver of the same animal. The cells in different parts of the lobule vary in their characters, as Dr. Handfield Jones has especially pointed out (a). The largest cells are not unfrequently as much as the $\frac{1}{300}$th in diameter, the smallest not more than $\frac{1}{2000}$th of an inch, or even less.

Each cell contains a nucleus, demonstrated easily in perfectly normal cells; but not to be readily distinguished when the cells contain much oil, and when they have undergone other changes in the course of disease. The nuclei vary considerably in size. Upon an average, they may be said to be about the $\frac{1}{3000}$th of an inch in diameter. Generally they are circular, but sometimes have an oval form. The nucleus contains granules, some being larger than others; often there is a bright point in the centre, which is regarded as the nucleolus.

Each liver cell of the adult liver usually contains but one nucleus; but, in some instances, two may be observed. The liver cells of young animals, on the other hand, commonly contain many nuclei. I have observed as many as six or seven in the cells of the calf, about the middle period of gestation.

In all the animals which have fallen under my notice, the liver cells, compared with the cells of other glands, are remarkable for their variety of form and size, for their high refractive power, and for containing, besides the nucleus, granular matter, and, very frequently, oil globules and granules of yellow colouring matter. The contents are not of a fluid nature, but highly viscid; so that, upon pressure, the whole cell becomes flattened, and the highly refractive viscid material is still seen to form a thin compressed layer. The cells are rounded, oval, or polyhedral in form, and frequently present many irregular angles, with somewhat rounded edges; not unfrequently the appearance is such as would give one the idea that the cells had been packed together very closely, and thus subjected to pressure unequally distributed, or even that they were fragments broken off from a solid, cylindrical mass, originally continuous, in which nuclei were interspersed at intervals.

Now, in the class of fishes, and in some reptiles and birds, the tubes of the cell-containing network do present the appearance of being filled with an uninterrupted mass, composed of oil globules, granular matter, nuclei, and sometimes coloured granules. In this drawing of the tubes of the cell-containing network of the common eel (*Anguilla acutirostris*), this point is well shown. The drawing was made with the neutral tint glass reflector; and I have the preparation now in my possession, so that it can be readily compared with the delineation. Here the tubes are seen filled, but not distended with oil globules. The high refractive power of the latter prevents the possibility of seeing the nuclei *in situ;* but in the fluid surrounding the preparation a few may be distinctly observed. The eel from which this specimen was taken had been kept for some time without food.

From this preparation the disposition of the contents of the tubular network in fishes is well shown; and it demonstrates, in an uninjected preparation, the existence of the tubular membrane, so difficult to show in this class of animals. Here is a drawing of the capillaries of the eel's liver injected, and you observe that they have an arrangement similar to that in most animals. Next to it are represented the tubes containing the oil globules, forming a lax network with very long meshes, or which, perhaps, is more correctly described as being made up of parallel tubes, communicating with each other here and there. Now, how can these evidently cylindrical lines of oil globules lie in the meshes of this vascular network, unless they be contained within a tube of basement membrane? Of the accuracy of the facts there can be no doubt, and any of you may compare these preparations together. The only interpretation I can give of them is that which I have just advanced, and it seems impossible to associate the two appearances as they exist in nature, in any other manner.

In a large number of animals, then, the contents of the tubular network may be said to be continuous, while in some it is interrupted so as to form masses irregular in size, in which nuclei are scattered at intervals; and in others, the particles are more uniform in size, resemble each other very closely in general character, and each contains a separate nucleus. Between the numerous and well-defined "liver cells" of the mammalian animal on the one hand, and the continuous mass which occupies the tubular network of the fish on the other, it is easy to demonstrate every intervening shade of difference; and more than this, in different morbid conditions of the human liver, every degree of separation and of continuity may be observed. Again: by the action of various chemical reagents the distinct and separate cells of the healthy mammalian liver may be made to fuse, as it were, so as to form continuous masses, as I mentioned in my last lecture.

In all cases there is room for fluid to pass between the contents of the tube and its walls towards the duct, as may be proved by the passage of injection; and, although to our observation the tubes may appear to be quite full, or even distended, it is obvious that a very slight diminution in the quantity of blood in the capillaries of the liver would permit the free passage of fluid along these apparently distended tubes.

The facts I have stated tend to lead us to the conclusion, that the liver cell is rather to be regarded as a collection of viscid matter round a central nucleus, than a true cell invested with a distinct cell wall. There are many circumstances in favour of such a view, but I shall not trouble you with these at present, neither shall I attempt to offer an opinion on the matter until some observations I am making are completed, for such a conclusion would be altogether at variance with the results of the observations of almost all previous observers, and if true of the liver cell, is also true of the cells of renal epithelium, and of those of some other glands; but it would be, in some measure, in accordance with a view upon the nature of cells lately advocated by Professor Huxley, which I described to you in the early part of the course, and which you will find in an article in the *Medical Chirurgical Review* (b).

Of the manner in which the Cells are arranged within the Tubular Membrane.—In the livers of adult mammalia which I

(a) For the views of Dr. Handfield Jones upon the function of the liver cell, the reader is referred to his valuable papers in the "Philosophical Transactions," 1846, 1849, and 1853, and to a paper in Vol. XXXV. of the "Medico-Chirurgical Transactions," 1852.

(b) "The Cell Theory," by T. H. Huxley, F.R.S., October, 1853.

have examined, the cells lie for the most part in a single row, although, as before observed, portions of the network have been found to contain two or three rows lying across the tube, while in other situations the space within the tubular membrane is so contracted as not to admit one cell of the ordinary size, and it is occupied only by granular matter and a fluid which refracts highly. The following mammalian livers have been examined with reference to this point,—human, pig, dog, cat, rat, rabbit, horse, seal, and some others.

I have never seen such an appearance as has been delineated by Leidy, who has represented these cells as lying across the tube; nor have I observed anything agreeing with the description of Lereboullet, who also figures two rows of cells, and represents a mass of injection passing between them. My own observations lead me to conclude that the cells lie somewhat irregularly, as above described, and differ totally in their arrangement from that of the renal tubes, where there is a central cavity. Bile would escape from the cells, and pass probably in an irregular manner, sometimes on one side of the tube, sometimes on the other, between the cell and the wall of the tube;—at least this is the way in which injection can be made to pass in the direction opposite to that in which the bile flows naturally.

In the only embryos of mammalia which I have examined, more than one row of cells is contained within the tube, and two or three are commonly met with (human fœtus, fœtus of ox). The cells are smaller than in the adult liver, the tubes not unfrequently being larger. In birds (linnet, turkey, starling, fowl), two or three cells also lie within the tube in some places, but in others only one is met with. In the chick numerous rows of cells are seen lying across the tube.

In those reptiles which I have observed, there are often several cells lying across the tube (frog, adder, field-snake); in fishes, so far as my observation goes, there is room for several rows of cells (flounder, frog-fish, sturgeon, herring, cod, etc.)

It may be said, that generally the tubes are most narrow amongst mammalia, and widest amongst fishes. The cells also are well defined in the former, but often not demonstrable in the latter class. The similarity of the arrangement of the cells in the tubes of the embryos of man and the higher animals, with the embryonic as well as the permanent condition which they assume in the lower vertebrate, and in many of the invertebrata, is a point which must excite great interest, and is one which has a parallel in the case of other glands and many tissues; although there is, perhaps, no more striking example of this gradual progress from the lower and simpler form of structure to the higher and more elaborate, than the one here adduced.

OF THE ULTIMATE RAMIFICATIONS OF THE DUCTS, AND OF THEIR CONNEXION WITH THE CELL-CONTAINING NETWORK.

Anastomoses of the Ducts, etc.—The anastomoses of the large trunks and of the branches given off by the larger interlobular ducts are more numerous than, from the observations of anatomists, one would be led to suppose. These anastomoses, however, occur principally between the trunks near their origin; but in some instances different branches of the duct communicate with each other near the point where they join the cell-containing network. In most animals the latter communications are very rare. In injecting one branch of the duct the injection will often pass out from another. Kiernan observed, that if the left duct were injected with size or mercury, the injection returned by the right duct. This probably depended upon the intimate communications between these ducts in the transverse fissure of the liver, rather than upon the existence of anastomoses between the small branches near their points of distribution.

The anastomosis of small trunks round the lobules, according to my observation, is very rare, as proved from careful examination of well-injected specimens of the livers of different animals. Indeed, I have only been able to satisfy myself of its existence in one instance.

With regard to the communications of the larger trunks, and of the smaller branches, with the ducts from which they come off, I may remark, that not only do the right and left hepatic ducts anastomose, by the intervention of small, tortuous branches in the transverse fissure of the human liver, as E. H. Weber many years ago demonstrated, but many of the branches which come off from these trunks are connected by smaller ones, which arise not far from the point at which they are given off. I have been able to prove, from very many injections, that those communications are very numerous indeed. In fact, a network with meshes is formed in many situations. Similar anastomoses occur to some extent in the case of branches of moderate size in the human liver; and in very good injections small branches coming off from a trunk at short intervals are seen to communicate freely with the trunk itself, and with each other, by numerous intermediate branches, so that a network is formed at a short distance from the parent-trunk. The meshes of this network are most variable in size and shape, and the tubes are more dilated in some places than in others. Some of these branches are composed simply of basement membrane and epithelium, but the largest have a fibrous coat, though much thinner than that of the duct itself. Branches of the vein and artery, and of lymphatics (in the case of the larger portal canals), ramify among these ducts, and lie in the meshes of the network. In very good injections this network of branches of the duct is demonstrated in the adult, but in the fœtus the communications are to be shown with less difficulty, although the branches are not so tortuous and are less complex.

In the dog, and also in the calf, I have observed similar communications, but not so numerous as in the human subject.

The smallest branches of the duct may be readily followed in tolerably good injections, to the surface of the line of hepatic cells, which bounds the portal canals, and not unfrequently they may be traced among these cells, in the human, and other livers. In the pig the trunks may be seen gradually breaking up into their smaller branches, which are applied to the capsule of the lobule, and which appear to anastomose only very rarely, as above remarked. In the human liver an irregular network of ducts is to be demonstrated close to the ducts, and might be termed an *interlobular network of ducts;* but the arrangement is certainly not universal, nor is it sufficiently extensive to entitle it to this name; indeed, I have not been able to demonstrate it in the pig, seal, rabbit, horse, cat, or monkey. I am not prepared to affirm its absence in the above-mentioned animals, but only remark that I have not been able to demonstrate it.

It may be stated generally, that small branches of ducts carry off the secretion from that part of the lobule to which they are distributed. These small branches unite to form slightly larger ones, and these, again, to form others. The small branches sometimes pour their contents *at once* into interlobular branches; in other cases they are connected by a few transverse branches, and occasionally they form an irregular network immediately before being connected with interlobular ducts. This network, when present, is a very different structure, and cannot be compared with that within the lobule before described. The *ductal* network exists in the most perfect form in the liver of the pig when this is not very fatty. When, on the other hand, the liver is fatty, this network is distended with cells and oil globules in considerable number.

Of the finest Branches of the Ducts, and of their connexion with the Secreting Structure.—It has been already stated that in injected preparations the smallest branches of the duct can be traced up to the liver cells. The walls of the small ducts are composed entirely of basement membrane, which is lined with epithelium, described elsewhere. These ducts do not always lie in such close contact with the smallest branches of the vein, as is invariably the case with the larger trunks. In most mammalian animals a few of the finest branches of the duct can be followed for some distance beneath the surface of the lobule, when they become continuous with a portion of the cell-containing network. In many animals, particularly in the rabbit, and, to a less extent, in the human subject, and in some birds (turkey, fowl), these branches are connected together so as to form a network, which is continuous with the hepatic cell network. The branches are readily distinguished by their small diameter, and by the small cells of epithelium within them. These finest branches often appear to lie among the most superficial portion of the cell-containing network without being connected with the tubes in this part, but they join a portion of the network which lies at a deeper part of the lobule, the tubes at the superficial portion of the cell network being connected with small ducts which do not pass into the lobule. This point is well shown in this drawing of the seal's liver, where one duct is seen joining the superficial part of the network, and another passing for some distance among the cell-containing network.

Some of these branches have been figured by Gerlach, and are, as he very justly observes, much narrower than the cells between which they lie. He supposes that they terminate by open mouths into which the bile enters from intercellular spaces; but that this is not the case we shall see presently.

In the pig, numerous fine branches, having reached the surface of the capsule, perforate it, and are immediately connected with a dense network, forming the most superficial portion of the cell network, which is often found to contain small cells, granular matter, and perhaps oil globules, but usually no cells of the ordinary size; and, in consequence, the diameter of the tubes is much less than at a greater distance within the lobule. When the liver is very fatty, however, this part of the cell-containing network does contain numerous cells filled with oil globules, as is shown in two or three of these figures. The very narrow *ductal* portion of the tube is seen to dilate considerably at the point where it becomes continuous with the cell-containing network. The cells can often be traced quite up to the point which distinguishes the secreting portion of the tube from the efferent duct. These points are well shown in this drawing, which was taken with the camera from a preparation still in my possession, which you will have an opportunity of seeing; and which shows these interesting points as clearly as when it was first mounted (a year and a-half ago). The narrow ducts, and the wide secreting tubes, both contain a very little injection; and, in consequence of their accidental isolation from adjacent parts of the network, this anatomical point is seen distinctly. The delicacy and extreme narrowness of the ducts will readily explain the difficulty of demonstrating their continuity with the cell-containing network; for they almost invariably break at the constricted portion when an attempt is made to isolate them; and, unless this isolation can be effected, it would be impossible to prove that such an arrangement really exists. In this preparation, by an unusually lucky accident, the cell-containing network has broken, instead of the narrow portion of the duct, which is protected, as it were, by lying close to an artery. I have seen the same point in several specimens, but never in one which shows so many minute ducts, and their points of connexion. These narrow ducts are only $\frac{1}{3000}$th of an inch in diameter; while the expanded portion, in which the liver-cells lie, and with which they are immediately continuous, is upwards of $\frac{1}{1000}$th of an inch in width.

The connexion between the finest ducts and the cell-containing network, from an injected specimen of the human liver, is shown in this drawing: the hepatic cells have been much altered in preparing the specimen from which it was copied.

In this drawing is shown a similar arrangement in a portion of human liver, which had been treated with soda, and kept for some time in strong syrup. Here the epithelium of the ducts is well shown, but the specimen has been flattened somewhat by the pressure of the thin glass.

Here is a drawing of another section of the same liver, which has not been subjected to pressure, in which the *narrow ductal portion* of the tube contrasts remarkably with the *wide secreting portion* which is continuous with it.

In the human fœtus, the connexion between the duct and cell network is shown in this drawing, and in this one is represented that of the calf.

In the seal, the hepatic cells are small, and injection readily passes into the tubes which contain them. The small ducts are comparatively few in number, but their course in this animal is very easily traced, and they can be well seen through the thin wall of a small portal vein which has been injected with clear size. Here, this point is well shown upon the surface of a branch of the portal vein, and in this drawing the connexion between the ducts, and the cell-containing network in the liver of the same animal is well shown.

I point now to a drawing of a thin section of rabbit's liver, taken from a thin and emaciated animal, in which the cells were much smaller than natural, and the diameter of the tubes much less. In many situations the tubes contained only granular matter, and no cells could be distinguished; narrow granular lines communicating at intervals with each other, were seen separated by wide clear spaces (capillaries). The injection ran very readily, and in some places distended these tubes to the extent shown in the drawing, and thus the clear capillary space was obliterated. In this specimen the very fine ducts were injected to a greater extent than can usually be effected, but even here I am persuaded that the injection has not entered into many of them. I believe it to be nearly impossible to inject all or even the greater number of the minute ducts, for by the pressure which those filled with injection must necessarily exert upon the adjacent ones, the latter become completely occluded, and no injection whatever can enter. Their extreme tenuity and the number which lie in close apposition, preclude the possibility of demonstrating them in the uninjected state, except in a few rare instances.

Birds.—In the turkey, and also in the fowl, I have been able to trace the continuity of the ducts and cell-containing network in injected specimens. The abundance of epithelium in the ducts forms a great obstacle to the injection, and the excessive delicacy of the capillaries prevents the injection of much water without rupture.

In the chick of the 15th day, and also in that of the 21st day, the continuity was clearly made out in some preparations which had been previously hardened in alcohol and soda. Careful drawings of these preparations are here represented.

Reptiles.—In the newt I have traced the course of the ducts in an uninjected specimen.

I have succeeded in making a good injection of the ducts of the adder, and was enabled to trace the continuity of the very narrow ducts with the wide tubes containing the liver cells. In this drawing the plexus of the largest ducts is shown surrounding the single branch of the portal vein. This drawing is the real size of the object, which was not magnified.

Fishes.—In the investigation of the anatomy of the ducts in the class of fishes, the greatest difficulties presented themselves, and very numerous were the failures which I met with in trying to inject them. These difficulties arose partly from the delicate nature of the vessels, which very frequently were torn in injecting them with water, and partly from the soft, pulpy, and highly fatty nature of most of the livers of this class of animals.

In the flounder the connexion is shown in this drawing. The secreting tubes represented are much smaller than is usual in this class, depending principally upon exosmose of their fluid contents, owing to which the tube shrinks, and its outline is clearly distinguished.

I have succeeded in injecting the ducts of the sturgeon and lophius, and the connexion between the very narrow ducts and the cell network is shown in these drawings.

Even in the fatty liver of the cod I once traced the continuity of the narrow ducts, with the very wide tubular network distended with cells containing oil and free oil globules.

In injecting the livers of fish the injection must be very dilute (weak spirit), or it does not penetrate to the smallest branches. The colouring matter which is employed is the same as in other cases. Often the particles of the injection accumulate in some of the finer ducts, forming what appears to be a rounded and slightly dilated extremity; for the further continuity of the tube cannot be detected. Indeed, so perfect is the resemblance, that it is only by observation of many different specimens that one becomes convinced of its fallacy.

(To be continued.)

A COURSE OF LECTURES ON ORTHOPÆDIC SURGERY.

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.

Assistant-Surgeon to the Royal Orthopædic Hospital; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital; now Lecturer on Surgery at the Grosvenor-Place School, etc.

LECTURE VIII.

CONGENITAL TALIPES VARUS.—*Continued.*

Morbid Anatomy.—Much that has been written on this subject has obviously been surmised from the external examination of the foot alone. Some accounts have evidently been written from the dissection of non-congenital cases. Others, from old adult specimens, in which the essential and acquired changes have not been distinguished. Some few accounts have been drawn from fair specimens of the deformity, both

infantile and adult, but the examinations appear to have been very superficially conducted.

The account which has generally been regarded as the most correct in this country, mainly from its adoption by Dr. Little, is that of Scarpa, which has also been very generally followed by continental authorities; but I shall presently show you, that this account does not agree in some of its essential points with the results of my own dissections. For instance, in numerous examinations which I have made of fœtal and infantile specimens of talipes varus, I have constantly found a very decided malformation of the astragalus, the nature and mode of production of which I shall presently describe. Scarpa does not admit the existence of any malformation of this bone except that acquired by the persistence of the deformity and the use of the foot in advancing age; but, on the contrary, rests his theory of the curability of club-foot in the infant very much upon the perfect formation of this bone, and also upon the comparatively slight displacement which he considers it to suffer, (another error, to which I shall presently advert.) In describing the position and conformation of this bone, Scarpa states, "I have found, that in children, even in the greatest degree of this deformity, the astragalus, compared with the other bones of the tarsus, is very little, or almost not at all inclined internally, or towards the internal malleolus, and that its anterior tuberosity, or the articular head of this bone, which, on the upper part of the foot, is received into the os naviculare, retains very nearly its natural direction and position with the tibia and the malleoli" (a). Dr. Little thoroughly adopts the views of Scarpa, and in the last edition of his work on Deformities, 1853, page 276, states: "As the opinions of Scarpa generally agree with the results of the author's (Dr. Little's) experience, they are here detailed with less minuteness than their importance otherwise deserved. The conclusion to which Scarpa had arrived was, that, of the entire tarsal bones, the astragalus had suffered the smallest degree of displacement; which alone proved the possibility of curing infantile talipes varus"; and, again, at page 277, he remarks, "The accuracy of Scarpa's opinion has been disputed by succeeding writers; but the result of my observations of more than thirty specimens of varus, from subjects of different ages, is to confirm the opinion of Scarpa, and add, that I have examined no preparation of varus in which each of the three facets of this bone, which articulate with the tibia and fibula, has not been in partial contact with the appropriate surface of these bones."

In February, 1852, I first described, in a communication to the Pathological Society (see Vol. III. of the "Trans."), the morbid anatomy of talipes varus, as I found it in the body of a child which had lived only a few hours; and in this account the deviations in form and position of the astragalus formed a conspicuous feature. The wood-cuts by which that paper was illustrated, drawn from the specimens exhibited, I have now, through the liberality of the Society, the opportunity of using, see Fig. 34. I exhibited also an adult astragalus, taken from a case of severe talipes varus in the Museum of St. Thomas's Hospital, Fig. 35, and pointed out the very close resemblance between the fœtal and adult bones "in all the more essential points."

Nevertheless, in adverting to my observations, Dr. Little observes, (b) "That Mr. W. Adams's description confirms the author's (Dr. Little's) opinion of the immaterial changes which the bones undergo previously to the use of the part." This is somewhat remarkable, after I had endeavoured to prove that the fœtal astragalus presented all the essential changes in form observable in the adult astragalus, and, therefore, that the deviations in form which all observers have noticed in the adult bone, were not the result of persistence of the deformity and use of the foot, as generally supposed, but were essential conditions of the deformity at the time of birth. The accuracy of my observations I have had ample opportunity of proving by the dissection of the numerous fœtuses in different museums and collections, and several children who had died of infantile diseases while under treatment at the Orthopædic Hospital.

There are several other points, in reference to which the results of my dissections are at variance with the opinions of Scarpa and other recognized authorities; but I would observe, that while I am desirous of pointing out some erroneous conclusions arrived at by Scarpa, and since perpetuated, there can be no doubt these opinions have been of essential service in supporting the asserted curability of congenital club-foot, in opposition to the theories of osseous malformation, from defective development, etc. A good account of the various opinions which have been held by the older anatomists and Surgeons, is to be found in Dr. Little's work; but, without further reference to this interesting part of our subject, I shall at once proceed to give you a detailed account of the morbid anatomy of talipes varus, as I have met with it on dissection in the fœtus and infant;—and in the adult, from such specimens as exist in our museums (few and bad as they are for the purpose, because they have all been macerated); but, chiefly, I shall rely upon the dissected specimen which, through the kindness of Mr. Bishop, to whom it belonged, I have been enabled to add to my collection, and to which I have previously adverted, as the only specimen I know of from which the morbid anatomy in the adult can be demonstrated. So important does it appear to me that we should accurately determine the essential and acquired conditions in the morbid anatomy of this deformity, that I propose to describe—1. The deviations which essentially belong to the deformity at the time of birth; and, 2. The superadded or acquired conditions met with in the adult. The description in each class will be drawn from well-marked and severe cases; and, therefore, in examining the slighter forms of this affection, you will be prepared to meet with conditions which shall approximate, rather than exactly correspond, to those now described. This course I deem preferable to the plan adopted by some authors, of describing three or four grades of the deformity, and describing each separately.

Morbid anatomy of Talipes Varus in the Infant.—The *bones* are found to present the following important deviations, in respect both of their position and form.

The *os calcis* is very much altered in position, but only slightly in form; it occupies a very oblique, and, in severe cases, almost a vertical position, from its tuberosity being drawn upwards by the gastrocnemius and soleus muscles. Its lateral direction is also somewhat changed, the bone being directed obliquely forwards and inwards, so that its tuberosity is inclined towards the fibular aspect of the leg, and in very severe cases it is found in actual contact with the fibula. This was the case in the fœtal specimen which I dissected and described in Vol. III. of the "Trans. of the Path. Soc.," and from which the astragalus represented below (Fig. 34, B.) was taken. In form, also, the os calcis is somewhat altered, being regularly arched in the direction of its length, with the convexity directed outwards, in adaptation to the curved position of the foot.

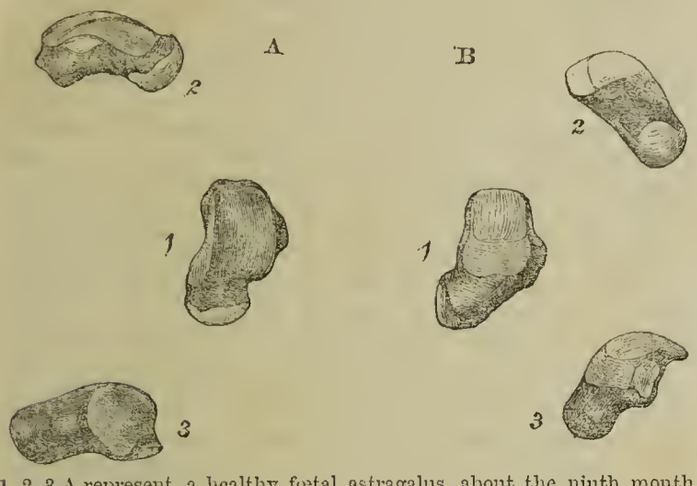
The astragalus is very materially altered both in position and form. In position it is tilted obliquely forwards and downwards, and to a certain extent displaced from its socket, in consequence of the oblique position of the os calcis and elevation of its tuberosity; so that the anterior third, or more, of the superior articular facet or trochlea of the astragalus, is thrust on to the dorsum of the foot, where it is covered by the elongated anterior portion of the capsular ligament of the ankle-joint, and the skin. Fig. 34, B 2 and 3, represent the degree of obliquity which this bone presents, and which, in very severe cases, approaches the vertical position. I have not detected any lateral inclination, or rotation inwards of the body of the astragalus in any case; but, contrary to what might be expected, I have observed in every instance that the body of this bone, or that portion which normally enters into the composition of the ankle-joint, is, to a greater or less extent, according to the severity of the case, rotated outwards, so that the external lateral articular facet appears to be somewhat increased in size from its firm contact with the fibula, and extrusion of its anterior portion, to be presently described; while the internal lateral articular surface is scarcely to be traced, and in severe cases is not at all in contact with the articular surface of the inner malleolus. Moreover, the line of the ankle-joint, instead of being horizontal when viewed from the front, presents an oblique direction upwards and outwards towards the fibula in severe cases.

The astragalus is very much altered in form; indeed, this is the only bone which presents any important deviations from the natural form, and these deviations are observable in its head and neck, its articular surfaces, and its posterior border, and are represented in Fig. 34, B, 1, 2, 3, in contrast with

(a) Op. cit., page 13. (b) Op. cit. p. 277.

the three corresponding views Fig. 34 A, 1, 2, 3, of a healthy fœtal astragalus.

Fig. 34

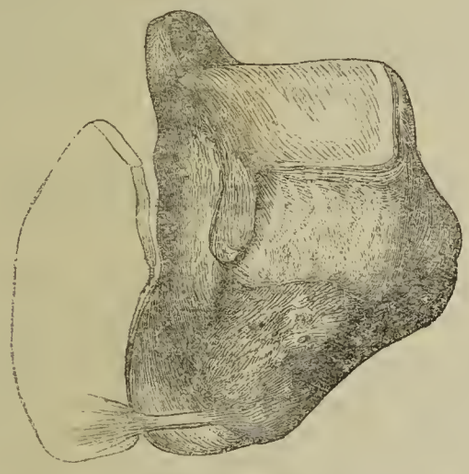


1, 2, 3 A represent a healthy fœtal astragalus, about the ninth month, in its superior internal and external aspects.
1, 2, 3 B represents similar views of the fœtal astragalus in a severe case of Talipes varus.

The neck of the astragalus in talipes varus, see Fig. 34 B, 1, instead of passing directly forwards as in the healthy bone, Fig. 34 A, 1, and being developed in a line parallel with, though somewhat to the inner side of the long axis of the body of the bone, inclines abruptly towards the inner malleolus, forming an obtuse angle with the body of the bone; its length also is apparently increased, but this depends upon the altered and imperfect development of the articular surfaces between which it is placed, rather than upon any real increase of this portion of the bone.

The articular head of the astragalus, instead of presenting a regularly convex surface, looking directly forwards, as in the healthy bone, has an antero-lateral aspect, and in a severe case, as that represented in Fig 34 B, 1, is divided into two articular facets, placed nearly at right angles to each other, and separated by a distinctly angular ridge; one surface, the larger, looks directly inwards and articulates with the displaced navicular bone; the other looks directly forwards, and is left exposed on the dorsum of the foot, by the altered position of the navicular bone, and is covered only by the elongated portion of the ligament, normally passing from the neck of the astragalus to the edge of the navicular bone.

Fig. 35.



The astragalus from a severe adult case of congenital Talipes varus. The navicular bone is drawn in outline, and the [illegible] which this bone occupies with respect to the long [illegible] galus is thus exhibited. Compare this with the fœtal [illegible] 34, B 1.

The lateral articular facets of the astragalus present some important abnormal conditions in respect both of position and form. They are displaced forwards in consequence of the altered position of the astragalus, and the articular cartilages are somewhat extended backwards towards the posterior border of the bone. The external articular facet is well developed, and appears to be somewhat larger than natural, from the posterior extension above adverted to, and from its close adaptation with the fibula, in consequence of a slight transverse rotation outwards of the body of the bone, previously described. The internal articular facet is very defective; in a severe case, as in Fig. 34, B 2, being represented only by a very small and imperfectly defined plate of cartilage, close to the posterior edge of the bone. This arises from the very imperfect contact between the inner malleolus and the corresponding articular surface of the astragalus.

The superior articular surface of the astragalus has been already described as being partially extruded from the socket of the ankle-joint, and exposed on the dorsum of the foot. This surface is also elongated, by the articular cartilage extending quite to the *posterior edge of the bone*, which is thin, attenuated, and wedge-shaped, (as seen in Fig. 34, B. 3,) instead of being obtusely rounded (as in Fig. 34, A. 3). In consequence of the very oblique, or nearly vertical, position of the astragalus, only the posterior two-thirds, or less, of its superior articular surface enters into the composition of the ankle-joint. This portion is flattened and separated from the extruded anterior portion by a distinct transverse line or ridge—an angle, as it were, formed by the junction of two surfaces, the planes of which are in different directions.

The navicular bone is altered in position to an extreme degree, but is very slightly, if at all, altered in form. This bone is drawn inwards and upwards by the tibialis posticus muscle directly, and by the tibialis anticus and extensor proprius pollicis muscles indirectly, so far as to bring its inner border, or tuberosity, directly under, and in contact with, the inner malleolus. The navicular bone articulates with the lateral articular facet of the head of the astragalus above described, and therefore holds a lateral, instead of anterior, position with respect to the astragalus; in fact, the long axes of these bones are parallel, instead of being at right angles to each other. The long axis of the navicular bone is, therefore, parallel with the long axis of the leg, instead of being at right angles to it. That the peculiar position of this bone does not result from a movement of transverse rotation, as described by Scarpa and other authorities, but that it depends upon the vertical, or nearly vertical, position assumed by the astragalus, I shall further attempt to prove, when describing the deviations, and their mode of production in the adult foot.

The cuboid bone is but very slightly altered, either in position or form. In all my dissections I have observed, and at first with some surprise, that this bone suffers very little, either in displacement or alteration of form, even in severe cases of varus, when examined in the fœtus or infant. In explanation, however, it may be remarked, that there is no muscular force to tell directly upon this bone, and the laterally flattened condition of the inner side of the head of the astragalus, together with the obliquity inwards of the os calcis, permit of such an adaptation of parts as to render displacement of the cuboid bone unnecessary to the production of varus as it occurs in the infant. In the adult its deviations are considerable, and will be presently described.

The cuneiform and metatarsal bones are very little, if at all, altered in their normal relations to each other, and to the navicular and cuboid bones. The inverted position which the anterior part of the foot holds with respect to the leg, and which constitutes the most conspicuous character of talipes varus, mainly depends upon the altered position of the navicular bone, and of the os calcis and astragalus, aided by the adapted alterations of form above described. You would not, therefore, expect to find any material deviations in the cuneiform and metatarsal bones in the infant.

With respect to the bones, then, I particularly wish you to bear in mind: 1st. That the os calcis and astragalus each occupy a very oblique, and, in very severe cases, almost a vertical position. 2nd. That the astragalus is very materially altered in form as well as position; that its neck passes obliquely inwards; and that the articular surface of the head of this bone, instead of looking directly forwards, is turned towards the inner malleolus, and has, therefore, an antero-lateral aspect. In very severe cases it may be said to present two articular facets: one, the larger, looking directly inwards, and articulating with the navicular bone; the other, the smaller, looking directly forwards, and exposed on the dorsum of the foot, in consequence of the displacement of the navicular bone. The posterior border of the astragalus is extremely attenuated, and wedged in between the elevated os calcis, and the posterior edge of the articular surface of the tibia. 3rd. That the navicular bone is displaced, and drawn upwards and inwards, so far as to come in contact with the inner malleolus, and holds a lateral relation with respect to the head and neck of

the astragalus. 4th. That the cuboid bone, though altered in its axial relations, is not materially displaced from its articular connexion with the os calcis. 5th. That the cuneiform and metatarsal bones maintain their normal relations with respect to each other, and with the navicular and cuboid bones.

The most novel, and, with respect to the opinions expressed by other authorities, the most interesting point in the description I have just given you, is in reference to the altered form of the fœtal astragalus, which I have found more or less marked according to the severity of the case in every specimen I have examined. I regard it, therefore, as an established fact, that in a severe case the astragalus is considerably malformed at the time of birth.

Now, with respect to the cause of the malformation of the astragalus, it appears to me, that, if we look at all the abnormal conditions present in the deformity, there is very little reason for supposing it to depend upon any defective power of development in the bone itself; but, on the contrary, there appears to be sufficient evidence for believing that the malformed condition of the astragalus is determined by the malposition of two of the bones with which it articulates, viz., the navicular bone and the os calcis; and that its altered form is in evident adaptation to the altered position of these bones. This seems to be a sufficient explanation, and it may rationally be supposed that the astragalus, in its cartilaginous state, having only an osseous centre, would mould itself, during the latter part of its intra-uterine growth, to the lateral position of the navicular bone, and to the elevated position of the os calcis. I regard the altered form of the astragalus, therefore, as the result, rather than the cause, of the deformity.

The existence of cartilage, which I have found constantly present on those portions of the articular surfaces of the astragalus which have either been extruded from, or have probably never entered into the composition of, the ankle-joint—the articular surface for the inner malleolus appears to be the only exception to this in very severe cases—and also on the exposed outer portion of the head of the astragalus, sufficiently evince the tendency of this bone to develope itself in accordance with its normal typical form; and proves the possibility of the functions of the ankle-joint, and of the astragalo-navicular joint, being perfectly restored, so far as the bones and their articular surfaces are concerned, should the normal relative position of the astragalus be obtained at an early period. In the event of this being accomplished, it is also fair to infer, that the astragalus, during the subsequent period of its growth and ossification would gradually assume its natural form. On the other hand, there can be little doubt that the difficulty of restoring the functions of the joints into the composition of which the astragalus enters, would increase in direct proportion to the extent to which ossification of this bone has been allowed to proceed in the deformed position.

The explanation I have now given you of the malformed condition of the astragalus, if correct, very materially assists us in determining an important practical question, viz.: as to the period at which the operation for the cure of congenital talipes varus should be performed.

It is obvious that, in order to give the astragalus the best chance of assuming its natural form during the period of active growth and ossification in early infancy, the cause of its malformation, viz.: the abnormal position of the navicular bone and os calcis, should be removed at as early a period as appears to be consistent with the general condition of the child. With this object in view, as well as for other reasons connected with the condition of the muscles and ligaments, to be presently adverted to, I advise the operation to be performed as soon after the first month from the period of birth as the circumstances of the case permit.

The position and form of the malleoli are of some importance to be determined in infantile varus, because, as Dr. Little informs us, "The inward inclination of the fore part of the foot, which constitutes the difference between talipes varus and talipes equinus, has, by Stromeyer, been attributed to deficiency of the inner malleolus; Delpech and Cruveilhier are likewise of opinion that this cause also greatly contributes to the maintenance of talipes varus. The author (Dr. Little) has never observed, in fœtal or adult instances of dissected talipes varus, any material deficiency of this process" (c). It should be remarked, that Stromeyer considered contraction of the muscles of the calf to be the immediate cause of both these distortions; equinus resulting if it occurred at a late period of uterine existence, when the internal malleolus was fully formed; and varus, if the contraction should occur at an earlier period. At page 274, Dr. Little also observes, that "Palletta (d), finding the internal malleolus deficient in size, concluded this to be the cause of the foot being drawn inwardly by the adductor muscles."

In none of my dissections of fœtal or infantile specimens have I found the inner malleolus deficient in size, or altered either in position or form; but, in the bones of a very severe adult case of varus, in St. Thomas's museum, described by me in Vol. III. of the "Path. Soc. Trans.," and from which the astragalus, represented in Fig. 35, was taken, the inner malleolus is seen to be much shorter than natural, and presents inferiorly a flattened surface, with an articular facet, which articulated with the navicular bone. I regard this deficiency of the inner malleolus, therefore, not as an essential, but as one of a series of acquired or superadded conditions, met with in the adult, and to be presently described. The fact that the inner malleolus is much less prominent in cases of varus than in the healthy foot,—and in severe cases this process is so little prominent, and so ill-defined, that its form and size cannot be determined by external examination,—I have already explained, to depend upon the displaced position of the navicular bone, which is drawn inwards and upwards so far as to be in contact with the malleolus, the relative external prominence of which it therefore diminishes. The evidence of dissection is conclusive as to the inner malleolus being of its normal size in the infant; but the fact is also proved by this process assuming its natural degree of external prominence during the treatment. This it does very quickly in infantile cases, after division of the posterior tibial tendon, where the ligamentous rigidity is not considerable, but more slowly in proportion to the existence of this rigidity. The increasing prominence of the inner malleolus during treatment, depending upon the degree of replacement of the navicular bone, is always a favourable indication as to the result of the case.

The transverse relations of the Malleoli, with respect to the shaft of the tibia, are, I believe, unaltered in infantile cases, although, in severe cases, it does appear from external examination, as Scarpa observes, (e) "as if the two bones of the leg had been turned in such a manner, that the internal malleolus is carried forwards, and the external backwards." I agree with Scarpa in considering this condition to be rather apparent than real (in infantile cases); and it appears to me to depend upon the oblique direction of the os calcis, the tuberosity of which inclines towards, and, in severe cases, is in contact with, the fibula; thus, the inner malleolus is apparently more forwards than natural. In severe adult cases, a twisting of the lower extremity of the tibia, and consequent alteration in the transverse relations of the malleoli, really does occur to some extent, and will be presently adverted to.

(To be continued.)

(c) Op. cit. page 250.

(d) Exercitationes Pathologicæ: Mediol. 1820, p. 138.

(e) Op. cit., page 6.

ORIGINAL COMMUNICATIONS.

TWO INSTANCES OF TETANIC SYMPTOMS CAUSED BY ANTIMONY;

AND PROOFS OF THE GREAT POWER OF THIS MEDICINE OVER CROUP; WITH SOME REMARKS UPON THE MURDER OF JOHN PARSONS COOK.

By JOHN ELLIOTSON, M.D. Cantab., F.R.S.

THERE cannot, I presume, be a reasonable doubt that William Palmer murdered John Parsons Cook with poison; that Cook died with tetanic symptoms, induced by what Palmer had administered; nor that antimony had been so administered. Several circumstances render it highly probable that strychnine also was given by Palmer to Cook; such as the perfect coincidence of the tetanic symptoms with the known effects of strychnine, the purchase of strychnine by Palmer during Cook's illness just before each of the two attacks of tetanic symptoms; the purchase of double the quantity before the second and fatal attack that he had purchased before the first attack which had passed away; the absence of explanation

by Palmer of what had become of the strychnine which he had purchased; and, with the world at large, the belief general in the Profession that antimony never occasions the tetanic symptoms which were witnessed (a). On the other hand, no trace of strychnine was detected after Cook's death; and Palmer, though not denying that he had poisoned Cook, firmly denied to the last that strychnine had been the means of death. These two circumstances, however, may be insufficient to justify a doubt that he had administered strychnine.

I will now communicate from my own practice two cases which prove that tetanic symptoms may arise from antimony.

On the 3rd of April, 1850, I was requested by a Medical gentleman, residing in Saville-row, to see the child, 14 months old, of a mistress-needlewoman in Princes-street, Haymarket, labouring under a first attack of inflammatory croup, which he had been treating for three days with solely the potassio-tartrate of antimony. He had given 27 grains. His first dose was half-a-grain, and he stayed two hours repeating this and watching its effects till two grains had been swallowed, full vomiting excited, and relief obtained. He then left the house, directing that a tea-spoonful of antimonial wine—a quarter of a grain of the tartrate—should be given every four hours till his next visit, as long as the difficulty of breathing and croupy sounds were noticed. These returned repeatedly, but never so alarmingly as they had been previously; and next a dose of half-a-grain was administered continually, both day and night. By the fourth day, April 3, when 27 grains had been taken, the disease was very much alleviated: but the vomiting had been profuse, there had been tetanic symptoms, and the depression was extreme; insomuch that the gentleman, who had made long and repeated visits every day, became very anxious and desired my opinion. The arms and legs had been rigid, the former half bent; the hands and feet turned inwards; the thumbs drawn upon the palms; the head drawn backwards, and to one side; the jaw closed so that fluids could be introduced at the sides only, and with the forcible use of a spoon; and, though this condition was permanent for three days and nights, and after all vomiting had ceased, there were catchings of the whole frame, and every attempt to move the child had aggravated the spasms. Consciousness was never lost. When I first visited the patient all those symptoms had subsided, the disease was greatly reduced, and debility was the chief point in the case. I said that such activity of treatment was new to me; that I had never given antimony to children under croup except in doses just sufficient to excite nausea and frequent vomiting; but that I had always been very unsuccessful in my treatment of such cases of strongly inflammatory croup, even with the addition of loss of blood and large quantities of mercury, which acted too slowly to have great power over the disease, though cases of a purely or chiefly spasmodic nature yielded for the most part readily; that I made it a rule never to interfere with treatment which was proving successful, notwithstanding it was new to me, and, perhaps, not in perfect accordance with my notions. The gentleman informs me that I gave a very decided opinion, that the child would recover, that the treatment had saved its life, and that if the symptoms of croup returned they should be combated again with the free, but careful, exhibition of antimony. I well recollect he told me at the time that he had feared I should oppose the further use of the medicine in any circumstances. The child recovered with no further treatment, and is now a fine boy nearly seven years and a-half old.

This gentleman was led to treat the case so freely with antimony, he said, by having once been successful in such a case with similar treatment put in practice unintentionally. He had lost three children in one family by croup; and one of these I attended with him, after Dr. Robert Lee had seen it, and I know that loss of blood, mercury, and antimony were carried as far as prudence justified. A fourth child, the youngest of all, was seized with inflammatory symptoms in the throat, while the eldest was being treated with antimony for its fatal croup. By mistake the youngest had the medicine intended for the eldest, and quickly recovered, after great vomiting and depression; symptoms of croup showed themselves ultimately, but very mildly. He remarked to his assistant that, when he had another case of croup, he would treat it with such doses of antimony as had proved successful in this instance. A year afterwards the same child had croup again, and, through the negligence of the friends in not giving the antimony as directed, was not so treated, and it died.

On February the 15th, 1852, I was summoned by the same gentleman to consult with him upon the case of a baby, 8 months old, affected with inflammatory croup for the first time; the child of a Welsh member of Parliament. Another child had already died of croup in Wales. He had been called up in the night, and had begun with half-grain doses of the tartrate, giving one dose every hour, and visiting the patient every two or three hours. He grew anxious, and we met in the afternoon. From my knowledge of his former case, I at once concurred in what he was doing, and advised a continuance of the treatment, carefully watched by him, as I knew it would be both night and day. Seven grains were given in sixteen hours; copious vomiting was produced; and tetanic symptoms excited as in the first case, but not so strongly. I did not witness them. Recovery was rapid and perfect. No other medicine was given; two or three leeches had been applied at the first, and a dose of calomel ordered, but without advantage.

The assistant of this gentleman is now in practice in Warwick-street, and three years ago called me in to see the child of a tradesman, in Regent-street, affected with croup, and being treated by him with the large administration of the potassio-tartrate of antimony that he had seen successful in the first case which I have described. He began by applying three leeches, and with the antimony, gave 12 minims of wine of ipecacuanha and calomel. I first saw the child late at night, after the treatment had been going on for twelve hours. He had given at first a quarter of a grain of the tartrate every ten minutes, and, as vomiting was not induced, he soon gave a half a grain. This speedily had the effect, and it was repeated as often as the vomiting had ceased for a time. The plan was persisted in for four days, and about 32 grains of the tartrate were taken; no tetanic symptoms, nor convulsions, were produced, and the child, though distressed, perfectly recovered. The little girl was 6 years old. He says that I was delighted, that we both regarded the cure as splendid, and that he afterwards effected exactly such another cure in a child 13 years of age, at Turnham Green, where he was then staying, and no spasms occurred.

I have no doubt that I have generally failed with tartrate of antimony in violent inflammatory croup, and some other inflammatory diseases of children, by not carrying the remedy far enough. Children have been reported to have sunk under it, and I had always feared to do mischief with it. Of the uncertainty of the antimonial powder, I thirty-six years ago gave ample proofs to the Profession (b), and from that time have not used it. The tartrate is all that can be desired: by regulation of the dose, it may, like the steam-engine or elephant's trunk, be employed for the most delicate or the most powerful work.

In the two examples of tetanic symptoms from antimony the patients were infants: one 14, the other 8 months old. Those in whom no tetanic symptoms took place were, the one 6, the other 13 years old. Yet an enormous dose will induce tetanic symptoms in children not babies, and in adults. Dr. Alfred Taylor quotes from the *Lancet* two cases of children, a girl 3 years old, and a boy 5, who each swallowed a powder containing ten grains of the tartrate mixed with sugar. In twenty minutes they were seized with vomiting, purging, prostration, convulsions, and tetanic spasms. The boy died in eight hours, and the girl in thirteen. He quotes also from the *Lancet* the case of a man, 28 years of age, who swallowed two drachms of the tartrate in mistake for Epsom salts, and recovered; and, besides agony, prostration, some vomiting, and great purging, had constant spasmodic contractions of all the muscles, especially those of the abdomen and upper extremities. The fingers were firmly contracted, and the muscles quite rigid.

During the whole of Cook's attacks of vomiting, diarrhœa, and depression, no tetanic symptoms occurred till the Monday night before his death upon the Tuesday night. There is no reason to suppose that strychnine had, up to that time, been given,—to suppose that Palmer had not trusted to antimony

(a) I employ the expression, "tetanic symptoms," because some may be unwilling to allow the term "tetanus" to anything but the two divisions of the regularly-formed disease—idiopathic and symptomatic—and their subdivisions. Traumatic tetanus is only one of the subdivisions of the symptomatic.

(b) Numerous Cases, illustrative of the Efficacy of the Hydrocyanic or Prussic Acid in Affections of the Stomach, etc. 1820.

alone in order to kill Cook. It was cunning in him to select antimony. A soporific would have suggested foul play by the stupefaction: Prussic acid might have given an odour perceptible to those around; arsenic would have been too common a poison not to have been easily detected. Antimony was the least likely to excite suspicion or be thought of. He seems to have trusted to it till he was out of patience, and probably expected to find Cook dead when he returned to Rugeley from London on the Monday night. He did not give quantities sufficient to excite tetanic symptoms; probably he feared to use larger quantities, lest each administration should produce burning pain at the stomach, be instantly followed by vomiting, and lead to certain detection of crime. There is no reason to suppose that he had any deep views of preparing the system for the action of strychnine, which is potent enough without preparation, or of rendering the detection of strychnine by the Chemist more difficult, which is not known to be a fact. His course appears to have been simple enough:—to attempt to murder Cook by antimony, as he probably had murdered his other victims, and, not succeeding so soon as he anxiously desired, to resort, at the last moment, to strychnine, with which also he failed, till, on the Tuesday night, he gave it again.

Conduit-street, June 30, 1856.

ON THE PATHOLOGY OF WHOOPING-COUGH.

By HYDE SALTER, M.D., F.R.S.,

Fellow of the Royal College of Physicians, Lecturer on Physiology and Pathology, and Assistant-Physician to Charing-Cross Hospital.

It is too much the custom to divide the studies and students of our Profession into the theoretical and the practical, as if these words implied an incompatibility or contrariety, instead of their being, as they are, essentially and inherently consistent. Often, however, by *theory* we mean *speculation*, and by *practice*, *empiricism*. True theory is but the interpretation of facts, and correct practice is but the carrying out of theory to its legitimate results. Theory that is not based upon fact is worthless; and practice that is irreconcileable with true theory is worse than worthless. The man who cannot give a reason for what he does is dangerous; and he who does not carry out his theories to their practical conclusions might as well be without them. True theory and correct practice are indissolubly wedded; their divorce is unnatural and fraught with mischief.

And this mischievous severance of theory and practice has given rise to a habit of depreciating all scientific studies that have not some manifest immediate practical result; and the verdict "theoretical" is considered quite sufficient to consign a thinker and his thoughts to the limbo of neglect. Now, this is very unwise and very unphilosophical; and, in my opinion, very unpractical. Who shall affirm of any one idea, however speculative it may appear, that it shall never bear any practical fruits? Who shall affirm that an unpractical idea shall not, in the subtle relation of things, suggest a practical one? Or who will be hardy enough to affirm that truth is not worth attaining for its own sake, irrespective of its practical results? I believe myself that *thoughts* are like *things*, in the Scottish proverb—"Keep them for seven years, and you will find a use for them at last."

Now, the paper which I shall have the honour of reading before you this evening is of a theoretical nature; but I hope it will not on that account be less acceptable to you. My object is simply to inquire, whether what we know of whooping-cough can furnish us, by the aid of any general pathological principles and analogical reasoning, with a clue to the absolute nature of the immediate cause of its most characteristic phenomena. I shall not enter into any lengthened account of its clinical history, its morbid anatomy, its complications, or its sequelæ, or the mechanism by which it produces them, which are vexed questions, and require more ventilation than the length of my paper can afford, but shall confine myself strictly to the object I have stated.

The considerations contained in the following paper, which have appeared to me sufficiently interesting to induce me to broach them—considerations primarily affecting the absolute nature of the disease, but in a secondary way its therapeutics also (although to the former alone I shall refer this evening)—have been suggested to my mind from my having seen a great number of cases of whooping-cough lately, especially among the poor of a district where it has been epidemic.

The question—*What is the nature of whooping-cough?* is a question that has been very variously answered; the utmost diversity of opinion has prevailed as to its pathology. It has been regarded as—An irritating effluvium in the blood, the consequence of suppressed transpiration; a miasmatic derangement of the bowels and liver; the inhalation, in respiration, of the minute eggs of a peculiar species of insect; a laxity of fibres, producing a quantity of thick phlegm obstructing the lungs; catarrh of the stomach, the respiratory symptoms being sympathetic; a specific inflammation of the bronchi; an inflammation confined to the glottis and larynx; an affection of the phrenic nerves, occasioned by a peculiar miasm, too subtle to be recognised; common cough, assuming its particular form from spasm of the muscles of the larynx and diaphragm, arising from a particular predisposition in children, and from individual idiosyncrasy; a disease essentially cerebral, the actual seat of it in the head—the respiratory affection being an effort of nature, by expanding the lungs, to relieve the head of its blood; an irritation of the intercostals, eighth pair, and recurrent nerve, dependant on an epidemic miasm; an irritation of the mucous membrane of the bronchi, the result of a specific secretion poured out by the glands and follicles of that membrane, saturated with hydrochlorate of soda; a specific turgescence of the bronchial glands acting upon the pneumogastric nerves; congestion, inflammation, and effusion, at the origin of the respiratory nerves; a peculiar affection of the vagus nerve, depending on a specific pathological affinity which it possesses for the whooping-cough poison.

What, then, *is* the nature of this obscure affection of which so many explanations have been offered? To what category of derangements do the most constant and characteristic features of the disease the most intimately unite it? I should say, without hesitation, to the contagious fevers—to those diseases which consist in the assumption into the body of some specific *materies morbi* introduced from without, and undergoing a certain process of self-multiplication within the system;—to the zymotic diseases, in fact.

The evidence of this affinity is this;—that, in the first place, whooping-cough is *contagious*:—this will be allowed on all hands; indeed, in no disease is the evidence of contagion clearer; in none is the number of cases of its undoubted occurrence greater.

In the second place, hooping-cough *runs a certain course;* it has certain stages which succeed one another in a prescribed order—a certain interval between the occasion of catching it, and the appearance of the first symptoms; certain premonitory signs; certain phenomena when the disease has attained its height; and certain sequelæ; refusing to be modified, and resisting, in a great degree, all efforts to accelerate, to retard, or to cut it short.

In the third place, *it is self-prophylaetic:* a person having had it once does not have it again—and hence it is almost entirely confined to children. And this restriction to children, I may remark, in passing, is at once a proof and a measure of its possession of these two qualities—self-prophylaxis and contagion; the contagion securing an early inoculation by the disease, the self-prophylaxis securing an immunity in those of more advanced age. And it may be observed of all diseases of this class, that the greater the contagion the earlier will be the average age at which the disease is taken; the more complete the self-prophylaxis, the smaller will be the number of those affected with it in mature years; so that a table showing the average age at which these diseases respectively occur would show the different degrees in which they possess the aggregate of the qualities of contagion and self-prophylaxis.

Now, of all the circumstances of whooping-cough, these three just specified—contagion, definite course, and self-prophylaxis—are the most characteristic; they are also, *par excellence*, the three characteristic circumstances of the contagious fevers; and the possession by any disease of these three features would always be to me a sufficient warrant for its admission into that family of disorders. This, I suppose, no one would be inclined seriously to dispute (a); at any rate, the position must be

(a) The place assigned to whooping-cough in the Registrar-General's Returns must be considered to imply a general acquiescence in it.

considered proven, and granted as a postulate, as the views which I entertain of the proximate cause of the most prominent symptoms of whooping-cough entirely hinge upon it.

The clinical history of this disease is sufficiently well known; there is no obscurity about its phenomena; they are as familiar to every one as they are striking. A child suffering from it is suddenly seized, often in apparent health, with the exception of the catarrhal symptoms, often without any exciting cause,—playing about, perhaps, or at a meal; it may be asleep, it may be awake,—with a very peculiar cough, consisting of a series of rapidly iterated expirations, at first forcible, loud, and so frequent, that they seem almost to override one another, but gradually diminishing in force and frequency as the residual air in the lungs, and the child's powers become exhausted; the child seems impelled by some urgent necessity to continue this process of self-strangulation; whether it will or whether it will not, it must go on as long as there is any air on which to cough, and when at length it ceases, it does so from sheer want of material, so to speak, for its continuance. Then when the acts of coughing have at length become so faint and feeble, as to be almost or quite inaudible, commences the *kink*, or back-stroke—the long-drawn sonorous whoop—during which the air is slowly drawn in by a single prolonged inspiration, through the same narrow chink by which a series of short *ex*pirations have just expelled it. With this the paroxysm may cease, but much more commonly the whoop is immediately succeeded by a repetition of the strangling cough, to be followed by the whoop, and that in its turn by another paroxysm, and another, and another; and so it goes on, getting deeper and deeper, as it were, into the mischief. In the meantime the child gets black in the face, the veins turgid, the eyes starting from the head, congested and suffused with tears; it drops anything it may be holding, clutches for support at anything near, or clings impatiently to its nurse; it has an expression at once terrified and imploring; it is in an agony. At length, complete exhaustion, or the expectoration of some frothy mucous, or an act of vomiting, comes to its relief. When the paroxysm is over, a short fit of crying often succeeds, but the child soon wipes its eyes, recovers its health by a few panting respirations, forgets its cough, and plays about as well as ever, till another attack cuts short its game, or its meal, or its rest. This is whooping-cough: I do not say this is all; but it is the most striking and characteristic part of it.

The whole of the cough, expirations as well as inspirations, is eminently *laryngeal*—there is no doubt of the whereabouts of the mischief; the short urgent expirations are just as characteristic of laryngeal irritation as the whoop; they are just what one often hears when anything of a particularly irritating character, as a grain of cayenne pepper, gets into the larynx. And I think the peculiar character of the cough results immediately from the exalted sensibility of the part—the cough is imperious; the stimulus to the reflex act is such that it must be immediately responded to; no interval for an inspiration is allowed—if the first act does not get rid of the source of irritation it must be at once repeated; with a source of irritation in the larynx one might as well attempt to resist the act of coughing as to resist shutting the eye when a grain of sand is blown into it. In the bronchial tubes the case is different; there, the lower sensibility of the surface admits of the cough being collected and deliberate; it allows it to be suspended at will, and a full inspiration to be taken for its more efficient performance. Not so with the larynx; and I regard the paroxysm of iterated expirations as as much characteristic of laryngeal irritation, as the deep, full, sonorous cough is of bronchitis, or the short, dry hacking of pneumonia and pleurisy.

Now, it will be asked, In what is this like a contagious fever? What have these phenomena in common with those of the zymotic diseases? Can anything be more unlike? What is the connecting link between these specific symptoms and those more general conditions just now indicated, and adduced as a sufficient proof that whooping-cough is congeneric with measles, or mumps, or scarlatina?

This connecting link—the relation between the absolute nature of the disease and the phenomena that the symptoms present—is the only point of obscurity, the only missing link of the chain; and I believe it to be thus supplied—*that the local manifestation of the disease—its characteristic phenomena—depend upon the irritation produced by the elimination of the materies morbi at the part affected.*

To expand this expression, and show its detailed application,—I believe that the catching of the whooping-cough depends upon the inoculation of the system with a specific poison; that this poison chooses for itself a certain eliminatory surface as its emunctory; that the surface that it chooses is the respiratory tract of the mucous membrane, from the conjunctivæ to the ultimate bronchial tubes, although the whole of this tract need not necessarily be involved in every case; that its material presence gives rise to an exalted sensibility and inflammation of the part; and that this exalted sensibility and inflammation constitute the proximate cause of the specific symptoms. To put the statement in an interrogative form—Is the state of the parts affected in whooping-cough specific? Is the catarrhal condition of the mucous membrane of the eyes and nasal passages, which so constantly precedes the laryngeal symptoms, a part and parcel of the affection? Is there any reason for limiting the specific condition to the nasal and laryngeal surfaces, and for forbidding its extension into the trachea and bronchi? If the condition were so to extend into the trachea and bronchi, would it not produce exactly such symptoms as we see—a profuse secretion, bronchial obstruction, lobular collapse, etc.? Would it not be most unreasonable, and at variance with the doctrine of chances, to suppose that, in the case of children often so jealously guarded, non-specific catarrhal inflammation should so constantly coexist with a specific affection? These questions seem to me to answer themselves.

The process of reasoning that has convinced me of the correctness of the above theory is based on the following considerations.

α. The attack is ushered in by evidence of irritation and inflammation of the upper part of the respiratory mucous membrane. In nineteen cases out of twenty there is coryza, sneezing, injection of the eyes, and all the symptoms of catarrh, before the characteristic cough comes on; it is feared that the cold will *turn to* the whooping-cough, the child is said to be *breeding* it.

β. The cough is generally accompanied and followed by symptoms of inflammation, or, at least, vascular disturbance, of the trachea, bronchial tubes, large and small, down even, in many cases, to the ultimate lung structure. It is rarely, if ever completely absent (in upwards of thirty cases that I have seen lately, bronchitis existed in every case), but it varies greatly in amount, in some cases being scarcely recognisable, in others proving rapidly fatal. To this irregularity, however, I do not attach any importance; it depends on the severity of the case, probably on the dose of the poison, or the amount generated in the individual instance; and there is nothing more extraordinary in the different degrees in which the bronchial tubes are affected, or even their occasional entire escape, than there is in the occurrence of scarlatina without implication of the tonsils, or measles without rash. In all the cases which I have witnessed, bronchitis, as I have just said, was recognisable; in many it was very severe, cutting the patient off in a few hours, and exhibiting signs of great virulence, I might almost say malignity.

Of one such case I will relate the particulars.

The child was six years old, and had had the whoop about two days when I first saw it; the fever was high, there was great depression, and low delirium; from the nose was discharged an ichorous excoriating secretion, such as is often seen in scarlatina; the lining membrane of the nose assumed a purplish, almost slate colour; the same condition extended into the throat, and thence into the mouth; the tongue and fauces were swelled; apthous sores appeared all over the cheeks, gums, and tongue; the teeth became loose, and many of them were coughed out; those that remained became embedded in the deep sores of the cheeks, and the swelling that resulted from this was such that the child could scarcely be recognised; the tongue could not be moved, and swallowing was effected with the greatest difficulty, indeed, for twenty-four hours before death it was quite impossible; the lymphatic glands of the throat, and beneath the jaw, became very much swollen, and saliva and blood ran from the mouth: altogether, for some time before death, the child was a ghastly sight to see. The same condition extended into the larynx and trachea; the cough was brassy, the breathing permanently stridulous and hissing. Up to the time of taking the whooping-cough this child had been strong and healthy; it had caught the disease from a playfellow; the early symptoms were present; the whoop soon succeeded, and the paroxysms had occurred for two days with

increasing severity when the above symptoms set in. Nothing could be clearer than the history; nothing more certain than the diagnosis. This child's little brother caught it of her, and also died, even before the sister; for though the affection in the nose and throat in him was slighter, that of the bronchial tubes was more severe; the inflammation spread rapidly down from the larger to the smaller tubes, and the child soon died suffocated.

Of the sister's cough I witnessed a paroxysm; it was virtually nothing more nor less than death by strangulation. I was listening to its hissing, stridulous breathing as it lay asleep, when, on awaking, it was suddenly seized by its cough; it was like ordinary whooping-cough, quick and sharp, but more croupy. It did not, however, last long; it soon ceased altogether; for the constriction of the glottis became such that it could not get a particle of air in or out, the closure was complete; it first became livid, and then seemed to get positively black, even to its hands and feet; it struggled and put up its hands, and made frequent gulping movements of the throat. At first it looked at those about it as if for help, but as the strangulation was protracted it became rigid, its head thrown back, and its eyes vacant and sightless; the gulping movements of the throat ceased, complete relaxation succeeded to the rigidity, and it collapsed in its mother's arms. The time, from the supervention of the strangulation to this its apparent death, must have been from a minute to a minute and a half. I wondered that its mother was not more horror-struck at its death, and was going to make the remark to her and to tell her to lay it down, when, within half-a-minute of its apparent death, I was astonished to see what I thought was a movement of breathing, and such it proved to be: within a minute the child was breathing as well as before. This, it appears, was the character of all its paroxysms, and its mother, having seen them before, knew that it would recover. Certainly, it was the most frightful thing I ever witnessed, and I never entered the room again without a dread lest I should see a repetition of it. It died in one of these fits.

Now this, no doubt, was an exceptional case, but it was exceptional in degree, and not in kind; the amount of inflammation and exalted sensibility of the larynx was exceptional, and therefore, in like proportion, the amount of strangulation was exceptional; but such a case bears, in my opinion, not a more exceptional relation to ordinary whooping-cough than the very malignant cases of scarlatina we sometimes see do to the milder manifestations of the disease. I have seen numerous cases in which a certain amount of the above conditions was present; the excoriating, ichorous character of the secretion from the nose is *common*, and the croupy character of the cough, voice, and breathing, showing a permanent narrowing of the glottis and trachea, is not infrequent. Moreover, the fulness about the lower part of the face and throat, which is partly caused by the venous congestion during the paroxysms and the passive effusion resulting from it, is, I am sure, in some degree, due to enlargement of the lymphatic glands beneath the jaw, which I have frequently detected, and which, I believe, bears the same relation to the condition of the contiguous mucous membrane as it does when occurring in scarlatina, and as the enlargement of the inguinal glands in gonorrhœa does to the state of the mucous membrane of the urethra.

γ. Again, it is worthy of remark that the whooping occurs, in regard to time, intermediately in respect to the other conditions,—after the occurrence of the catarrhal symptoms, and before the establishment of the bronchial; and that its seat, the larynx, is, in regard to place, intermediate, between the seats of those other conditions. It would seem, then, that the affection of the mucous membrane creeps downwards, along the respiratory tract, in an equable and regular course, giving rise to the different symptoms as it affects, in its march, the different segments of this tract, and having always a direction downwards. This consideration greatly favours the view that the catarrhal, laryngeal, and bronchial symptoms are all dependent on one and the same cause, and different parts of the same affection.

δ. The fact that the disease does not consist essentially in the spasmodic affection of the glottis, but in that humoral condition, of which the affection of the respiratory mucous membrane is but a manifestation, is shown by those cases in which one child will catch the whooping-cough from another, and communicate it to a third, without itself ever having had, from first to last, the characteristic whoop.

ε. Again, the surface is an eliminatory surface; it is one that, in its normal condition, is the seat of an active secretion; its vascular supply is abundant, and, from the abundance of its mucous follicles, the aggregate of its area is very extensive. It is, moreover, a *free* surface, whatever is secreted by it is virtually thrown off, is already out of the system. Its anatomy, therefore, supplies the conditions of the supposed final cause of all eliminatory action,—the freeing the body from something peccant.

ζ. Lastly, these views are favoured by the whole weight of the argument of analogy. We have, in all the zymotic diseases, the best possible evidence for asserting that all the symptoms (with the exception of the primary impression made by the poison on the nervous system—its irritation, excitement, depression) are due to the irritation, inflammation, or destruction of the parts concerned in the elimination of the *materies morbi*. Of this nature is the affection of the salivary glands, mammæ, ovaries, and testicles in mumps; that of the tonsils, skin, and kidneys in scarlatina; that of the skin, the respiratory, and sometimes the intestinal mucous membrane in measles; of the skin and mucous membrane of the throat and mouth in small-pox; of the skin, Peyer's patches, and solitary follicles in continued fever; of the skin, tonsils, and various other structures in syphilis, etc. The circumstance that determines the characteristic symptoms of these diseases is, the choice that they respectively make of their appropriate emunctories; and if we could make scarlatina poison choose the solitary and *agminate* glands of the intestine, and the typhoid poison the tonsils, for their respective channels of elimination, we should, *quoad* this change, transform the one disease into the other. If, then, the circumstances just now mentioned are sufficient warrant for the admission of whooping-cough among the zymotic diseases, we have the strongest analogical reasons for believing that the characteristic symptoms are due to the elimination of the poison at the seat of their occurrence.

There are certain objections to the views which I have advanced, which I can readily conceive being made, and I shall finish these observations by giving what appear to me to be satisfactory answers to them.

1. It may be asked, *Why should the poison of whooping-cough choose such a circumscribed point as the glottis for its elimination?* This objection I answer by denying the fact—the affection of the mucous membrane is *not* confined to the glottis; in most cases the catarrhal and bronchial symptoms are sufficiently pronounced, and in those in which they are so little conspicuous that the glottic affection seems the only one, that circumstance depends on the anatomical and physiological conditions of the part, and not on the limitation of the affection to the glottis being as real as it is apparent. There are two circumstances proper to the glottis, in its normal condition, that render it a much more delicate index of any source of narrowing, either spasmodic or permanent, than any other part of the respiratory tract, either above or below it. In the first place, it is, anatomically, an isthmus—a chink, and any source of narrowing, such, for instance, as an inturmescence of the mucous membrane, would act with tenfold greater force at this narrow strait than in the capacious channels that it connects; for an amount of swelling that would contract the chink of the glottis by one-half would not diminish the calibre of the capacious larynx below by one-sixteenth; in fact, a swelling that would hardly be felt in the one would completely block the other up. In the second place, the glottis is, physiologically, endowed with an acute sensibility, a very perfect reflex nervous organization, and an elaborate muscular mechanism that render the application of the most delicate stimulus at once productive of vigorous spasmodic contraction; so that a source of irritation at the glottis, if applied elsewhere, would cease to be a source of irritation; and even supposing the stimulus to be less delicate, so that it should be felt as an irritant in the trachea and bronchi, yet it could not be followed by such striking muscular phenomena as in the glottis, from the entire absence in those parts of that muscular and nervous organization that the glottis enjoys. And thus a state of mucous membrane that exists equally above and below may manifest itself only at the glottis; in part from its shape, which renders an absolutely small source of narrowing relatively a great one, and, in part, from its organization, which disposes it to take on spasmodic

stricture with a facility possessed by no other part of the air-passages (b).

2. It may be urged, that *there is an absence of those constitutional symptoms—that vascular and nervous excitement and oppression—that are characteristic of zymotic diseases.* I admit that this is the case. I admit, that although in many instances there is considerable febrile disturbance, and in *all* the *bad* cases, yet that in some there is no vascular disturbance whatever, and no nervous except the local spasm itself. But this is no criterion—it does not affect the argument. Although the introduction of a specific poison into the system is generally attended with great constitutional disturbance, yet sometimes this is not the case; and the absence of it may be due either to the nature of the poison or the mildness of the attack. The poison of syphilis produces no fever: it may run its whole course from its primary inoculation to its ultimate elimination without giving rise to any general vascular disturbance whatever. In scarlatina, too, the fever is often inappreciable. I have seen cases in which slight sore throat, followed in a week or two by desquamation, has been the only symptom; there has been no loss of appetite, no thirst, and the patient has not laid by for a day; I have seen cases in which the supervention of dropsy was the first ailment of which the patient was aware; and I remember one case in which a girl was admitted into King's College Hospital, suffering from hæmaturia, who stoutly denied that she had had anything previously the matter with her, but admitted, on a close questioning, that she had had a sore throat about a month previously, and that the skin of her fingers and toes had peeled off. She was a servant, and had not omitted her work a single day. The absence of fever, therefore, is valueless even as a negative sign.

3. *How*, it may be asked, *can the absence of post-mortem appearances be explained, where, in some mild cases of whooping-cough, death has occurred from some other cause?* No doubt there is such an absence, although I believe there never is where whooping-cough is the cause of death; but I think the absence of the signs of inflammation, at least of inflammatory redness, may be, in part, explained by the great readiness with which the vessels of the mucous membrane of the larynx relieve themselves, on the one side by the abundance of their secretion, on the other by the looseness of the submucous areolar tissue; I believe that œdema is a more direct and immediate result of vascular fulness in the larynx than in almost any other part of the body. But it is not necessary, I think, to resort to this explanation. The primary irritation of a poison itself, as well as that of the inflammation to which the poison gives rise, may be sufficient to disturb the nervous equilibrium of a highly sensitive part, and produce, through that morbid sensibility, the secondary phenomena of muscular spasm; and the irritation which one source of inflammation gives rise to, may be, and often is, much greater than another, and not at all in proportion to the amount of inflammation produced. We see an example of this in the case of strumous ophthalmia, in which the intolerance of light may be extreme with very little vascular disturbance, while in a case in which the poison of rheumatism or syphilis may give rise to much greater inflammation, the sensibility of the retina may be very little disturbed; and so, in the same way, while the poison of syphilis may disturb the vascular condition of the larynx greatly, and affect its sensibility but little, that of whooping-cough may produce in it greatly exalted and morbid sensibility, leaving its vascular condition but little affected. What I mean to say is this—that to prove that a morbid sensibility is due to the material presence of a poison, it is not necessary to prove that the poison produces the perversion of the sensibility through, and by means of, inflammation, and, therefore, the presence or absence of the signs of inflammation becomes valueless, or, at least negative.

4. It may be objected, that *the presence of the materies morbi would imply a constant condition, whereas the symptoms are intermittent—the cough is paroxysmal with intervals of clear breathing between. How can a constant condition, like a specific local humeral disturbance, produce the phenomena of whooping-cough now, and again in half-an-hour, and yet admit of healthy and pure respiration in the interval?* This is an objection that I can conceive being made. Now I believe that the condition of the larynx *is* a constant one, that the morbid sensibility does not come and go, that it exists as much in the intervals of the cough as during the paroxysms, but that the exciting cause, the stimulus to this morbid sensibility, is not constantly present. I believe that the stimulus to the first act of coughing is generally the presence of an abundant glairy mucus; I believe that the stimulus to the second act is, added to this, the forcible pressure of the two sides of the chink of the glottis, one against the other, accompanying the first act. If any one closely watches a child with whooping-cough he will often see that the first act of coughing is collected and by no means urgent, that the child, when effecting it, has none of that scared and strangled look which it assumes immediately afterwards; that the inspiration immediately preceding the cough is not stridulous, but that the moment the child has coughed once the characteristic condition is established; each coughing act is, as it were, the parent of the succeeding—the cough is self-supporting. I believe that a child could at any time bring on a paroxysm by coughing once. From this we may explain the way in which vomiting puts a stop to the paroxysm; the act of coughing and the act of vomiting cannot be simultaneously performed; as soon, therefore, as the child vomits the cough necessarily ceases, and with the cessation of the cough, the mucus having already been expelled from the larynx, all exciting cause vanishes, and when the vomiting is over the cough is gone. The cough is in its full vigour up to the moment of retching, and there is all the appearance of an urgent and intolerable irritation at the glottis; an act or two of retching interposes, and this condition has vanished. I do not see in what other way this is to be explained. Acting on this view, I have, where the child was old and intelligent enough, more than once succeeded in putting a stop to the fit by persuading it to resist the disposition to cough however much it felt inclined—to hold its breath, and swallow slowly: the effort was transient; in a moment or two it could safely resume its breathing, and the cough had gone. I conclude that the presence of an abnormal mucous secretion is the primary exciting cause of the paroxysm from the absence of any other determining cause, from the fact that there generally is expelled at each paroxysm an amount of mucus of a peculiar glairy character, and that could not be secreted in the time, and that its expulsion is always followed by relief.

Some pathologists, recognizing the conclusiveness of the circumstances pointing to the humoral nature of whooping-cough, and yet seeing in the absence of commensurate post-mortem appearances of the respiratory mucous membrane, etc., valid objections to the views I have been advocating, have adopted the hypothesis that the glottic irritation is *subjective*, that it is central, and merely *referred* to the glottis, and that it depends on the specific whooping-cough poison affecting in a specific way a certain portion of the centre of respiration.

Now this view has, at any rate, the advantage of being the result of reasoning on the subject, and is self-consistent, and adequate to the explanation of a good deal; but for the explanation of a good deal more it is quite inadequate, and with much it is incompatible. I think the *amount* and *kind* of post-mortem appearances frequently found, the precursory symptoms, the irritation produced by the secretion, and the apposition of the surfaces, and the relief that immediately follows the expulsion of the former and the cessation of the latter, all show that the irritation is peripheral, and not central. Besides, independently of these considerations, which is antecedently the most probable—that a certain portion of the nerve-matter of the centre of respiration should, by the exercise of a special elective nutrition, attract to itself a specific poison producing, by its presence at

(b) I believe, therefore, that we do not see in the phenomena of whooping-cough any evidence that the larynx is the exclusive or special seat of the disease, but merely that it does not escape; whereas in ordinary catarrh the larynx does generally escape: and this is a most remarkable thing. How almost universal a thing it is for nearly everybody to have as often as once a winter an attack of cold, beginning in the head and creeping down into the chest—one day suffering from stuffed nostrils, coryza, and sore throat, and waking up the next day, perhaps, with pain beneath the sternum, dry wheezing, and a rasping cough, that seems to plough and tear the chest up. Now here we have evidence of the inflammation of the naso-faucial and bronchial mucous membranes; but in ninety-nine cases out of a hundred the laryngeal strait that connects the two entirely escapes; for how rarely are the above symptoms associated with those of laryngitis. To my mind it is more strange that catarrhal inflammation in its course from the head to the chest should overleap the larynx than it is that the morbid condition of these parts peculiar to hooping-cough, following the same course, should implicate it. The final cause, or purpose, however, of this comparative immunity of the larynx seems sufficiently plain—the peril, namely, of its inflammation; for, if laryngitis were as common as bronchitis, how vastly the mortality of catarrh would be increased, and in what peril we should hold our lives.

the centre, subjective phenomena at the periphery; or that a poison should be eliminated at an actively secreting free surface, and produce at the point of its elimination a morbid excitement and perversion of those natural functions for which the organization of the part adapts it? I think there is no comparison between the antecedent probabilities of the two hypotheses. The *final cause* of the attraction which certain tissues exercise on certain specific poisons is *elimination;* to throw it out of the body they must necessarily first attract it to themselves. In the nervous centres the conditions of elimination are not present; the organs are closely shut up, the molecular changes are slow and delicate; there is no secretion, no emunctory; the absorbents are scanty. Nerve matter, in my opinion, would be the worst conceivable structure for working any noxious material out of the system; and I conceive that the absence of the conditions of an acknowledged final cause is always a strong argument against the reception of any given hypothesis.

Such, then, are the views that I think the phenomena of whooping-cough suggest as their most legitimate and rational explanation. To some they may, perhaps, appear nothing better than an uncertain speculation, and, possibly, may really deserve no more than to be considered the best hypothesis that can be offered. To my own mind, however, the evidence in support of them appears to be satisfactory—as conclusive as can, in the nature of things, be obtained, and as good as that on which is based our reception of many pathological truths.

I should very much have liked, if time had permitted, to have gone more at length into several other of the various theories to which I just now briefly referred, and to have stated particularly my objections to them. But a single short paper on such a subject as whooping-cough must necessarily be fragmentary, and I fear to transgress my limits.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

CASES OF SEVERE INJURIES TO THE ELBOW JOINT.

The following group of cases illustrate some important points in the treatment of a class of injuries of very infrequent occurrence in civil Surgery. Compound fractures and dislocations, in which the lower extremity is involved, constitute a very large proportion indeed of the cases of this class, which are met with in our Hospitals, those of the upper extremity being comparatively rare. Confining our attention for the present to those of the elbow joint; we hope, however, by gleaning over the very large field presented by the London Hospitals and those of the English Provinces, to be able to gather some materials of value. In so doing, particular regard will be had to those which bear upon the very important questions: 1st. As to when amputation is imperatively demanded, and when attempts may reasonably be made to save the limb; and 2ndly. As to when, on its being determined to attempt the preservation of the limb, an excision of the articulating extremities of the bones is to be preferred to a simple reduction. JONATHAN HUTCHINSON.

THE LONDON HOSPITAL.

Case 1. — COMPOUND FRACTURE OF THE OLECRANON — DESTRUCTIVE INFLAMMATION OF THE JOINT, AND EXFOLIATION OF THE END OF THE BONE—RECOVERY.

(Under the care of Mr. CURLING.)

The following narrative is a copy of the notes taken by the dresser of the case:—

Anthony Young, aged 28, cabinet-maker; a stout, muscular man, of middle height, was brought into the Hospital April 13, under the care of Mr. Curling, with a compound fracture of the olecranal end of the ulna. The man was somewhat intoxicated, but stated that he had been struck twice over the elbow with a bagatelle cue, and had immediately lost all power of motion in the joint. There was a small wound (about half an inch long) immediately over the fracture, from which blood and synovia were flowing; the fracture itself appeared to be quite transverse, without any comminution or great displacement. The wound was covered with dry lint and strapping, and the arm having been bandaged to a long, straight splint, the patient was sent to bed. Ordered—Tinct. opii ℿxxx.

April 14.—The man is more sober this morning; slept well: does not think his arm broken, as he feels no pain. States that he has been accustomed, since the age of 15, to drink largely of beer. Ordered porter 0j., with middle diet. The patient remained thus for four days undisturbed, requiring only a little opening medicine, and experiencing no great amount of pain.

On the evening of the 17th, he felt more uneasy. Ordered —Tinct. opii ℿxxx.

18th.—Has slept well, but feels poorly. Pulse hard and frequent; skin hot, and tongue white. The arm (on removal of splint, etc.) appears tense and inflamed. Ordered—Fot. cal. mist. sal. effervcs. 6tis horis, with milk diet and beef tea, to leave off the splint, and take no beer.

19th.—Feels pretty well in himself, but the pain in the elbow has not yet subsided. Ordered a chop, and linseed meal poultice.

20th.—Has slept well (without opium), but feels faint; bowels regular; fluctuation is becoming distinct over the elbow. Ordered porter 0j., mist. ter in die.

22nd.—Fluctuation has now become very apparent on the outer side of the joint, and Mr. Curling accordingly made an opening sufficiently free to discharge a large quantity of very fetid pus. Ordered wine ʒviij., and an enema com.; to continue the poultice.

24th.—Complains of a troublesome cough; but otherwise feels perfectly well. The elbow looks healthy, but discharges freely. Ordered some lohoch.

26th.—The patient is weaker to-day; sweated a good deal last night; pulse feeble. Mr. Curling removed part of the olecranon, which protruded through the wound, and ordered wine ʒxij.

28th.—To-day another opening was made on the anterior surface of the joint, allowing the escape of another large quantity of pus. The man's spirits are, nevertheless, very good. Ordered an increase of wine, od. ʒxx.

May 1.—Going on well in every way. The arm is discharging freely. Ordered to have the enema repeated.

4th.—No change. Apparently merely needs support. Ordered beef tea, with milk and light puddings; two chops, and his wine and porter.

22nd.—Up to this date, the arm has been steadily improving; the discharge has decreased, and the man is better. To-day, however, the wound looks somewhat sloughy, with ashy surface, etc.; and ulceration has taken place. Mr. Curling ordered an angular splint, with pad interrupted at the elbow, and the many-tailed bandage; the arm also to be kept constantly wetted with lot. arg. nit. gr. ij.. ad aq. ʒj.

25th.—Not much improvement from the use of the bandage. The surface of the wound (which is now about four inches in diameter) is apparently most obstinate as to cleaning.

30th.—The arm continues about the same, though the discharge is, if anything, rather greater; the wound exhibits great want of power. The patient feels weaker in himself, and is losing his appetite gradually.

June 8.—No change for the better; in fact, the patient appears to be sinking; the great anxiety of countenance, feebleness of pulse, and frequent sweatings seem but to indicate one termination. Mr. Curling appears to entertain some idea of amputation, but will first try the lot. acid. nit. dil. on lint. To continue the wine, etc., as before.

13th.—To-day Mr. Luke was requested to see the case, and suggested the removal of the patient to some other ward, attributing the unhealthy state of the arm to some atmospheric cause. Would make no change in treatment.

14th.—To-day the man has been removed, on his waterbed, to one of the private attics, and thinks that he will now recover. Another abscess appears to be forming at the upper part of the arm, near the axilla. Ord. mist. vini gallici. 6tis horis.

16th.—Mr. Adams saw the man to-day with Mr. Curling and, after a careful examination and consultation, they determined not to amputate, thinking that desisting from the operation will give the patient the best chance of life in his

present state; the amputation cases having been unusually fatal lately from pyæmia, sloughing, etc.

18th.—The arm is, if anything, rather improved to-day; but another abscess has formed at the upper part of the arm. Mr. Curling opened it, and discharged about three ounces of healthy pus. Ordered cat. far. lin. every day.

21st.—A considerable change has taken place in the aspect of the wound, which is now cleaning fast. Two or three large sloughs have separated, and the edges look more clean. The man's appetite is better; he is able to eat a chop in the morning and another at dinner.

28th.—The wound has gradually cleaned completely, and now exhibits the bright-red granulatory surface of a healthy sore. All discharge has ceased from the other parts of the arm. Ordered to discontinue the poultice and lot. cal. chlorid., and to use the lot. arg. nit. gr. iij. ad aq. ℥j.

From the last date up to the present time (July 28) no unfavourable symptom has recurred. The wound has healed considerably, (being now about the size of a five-shilling piece,) and the man's constitutional powers are improving. His wine, etc., is gradually diminished. A fortnight ago he was allowed to get up and walk about his room; and on the 21st instant Mr. Curling thought him well enough to be sent into the long ward again. The elbow is, of course, stiff; but, with the assistance of his right hand, he is able to effect some slight movement in the joint.

Case 2.—COMPOUND DISLOCATION OF THE ELBOW—DESTRUCTIVE INFLAMMATION OF THE JOINT, AND EXFOLIATION OF PART OF THE HUMERUS—RECOVERY.

(Under the care of Mr. CURLING.)

The following are the notes taken by the dresser of the patient:—

Joseph Stanley, aged 12, admitted into the London Hospital April 17th, under the care of Mr. Curling. On examination, the lower end of the humerus of the left arm was found to be protruding to the extent of three inches, through a crescentic wound (of about two inches in length) on the inner side of the elbow. The olecranon and head of the radius are very prominent backwards and outwards. There is great injury of the soft parts; through the wound the biceps and brachialis anticus appear lacerated; and the median and external cutaneous nerves are stretched tightly over the anterior surface of the protruded bone, but are not torn. The patient has sensation in all his fingers, but describes them as somewhat numbed. Not much blood has been lost, though the pulse is low and the boy faint. Conveyed to bed. Mr. Curling saw the case at 1 o'clock, and at once attempted the reduction. The arm having been fixed, extension was commenced from the wrist; and the lower edge of the skin wound, being lifted over the condyles of the bone, the latter gradually resumed its natural position. One suture was put in to close the wound; and wet lint having been applied in strips over the elbow, the arm was carefully adjusted on an angular splint, well padded; and the patient then placed comfortably in bed, with his arm on a pillow. Ordered milk diet, with beef-tea. Fot. cal.

18th.—Has slept very little through the night. The elbow is a great deal swollen, and the bandage seems tight. Mr. Curling released the bandage, but left the wound untouched. At 11 p.m., attention was called to him, as some bleeding had taken place, caused by the restlessness of the patient, who had been delirious, and had endeavoured to get out of bed. The wound, then, was re-covered with lint, and the arm confined by a sling to the neck. Tinct. opii, ♏xx., ordered. When seen three hours after, he appeared to be sleeping comfortably, though the nurse stated that he had been very sick.

19th.—Has slept well. Pulse 120; no pain in the arm when at rest; but some erysipelas is beginning to show itself. Ordered haust. domest. ℥j., mist. salin. efferves. 6tis horis, and morphia gr. ¼ nocte.

20th.—States himself to be much better, in fact, wants to get up. Skin less hot, and tongue moist; pulse 120. Mr. Curling ordered an angular splint, with pad interrupted at the elbow, to be applied to the arm. The wound looks healthy, though, of course, suppurative, and there is some appearance of fluctuation over the olecranon. Ordered as before, fot. cal., and a poultice to the wound.

21st.—Still feels well; countenance less flushed, but erysipelas is extending up the arm. Ordered wine ℥ij., and ginger beer to relieve his thirst. To continue the warm fomentations.

22nd.—Feels perfectly easy in the arm; sleeps without the morphia; bowels regular.

23rd.—Has evidently profited by the wine. Tongue clean, and skin cool. Fluctuation is becoming very distinct. Ordered poultices from the hand to the shoulder once a-day. Wine ℥iv., and a chop.

24th.—Feels quite comfortable, but matter has evidently formed in the joint. Mr. Curling opened it, and allowed the exit of a quantity of dark, fetid pus. The vessels are a good deal congested. Ordered bread and water poultices; wine ℥vj., porter 0½.

26th.—Another small abscess was opened to-day in the upper arm. Otherwise well.

27th.—No change.

28th to May 7th.—To go on in the same way. Appetite good, and bowels regular. To leave off all medicine.

8th to 10th.—No change.

11th.—Still going on well, but the matter appears to bag somewhat in the arm. Mr. Curling thought that some slight and even pressure, by the use of the many-tailed bandage, would be advisable.

15th.—Evidently great improvement from the bandage; less discharge, and size of joint diminished. To take the full diet, with a chop twice a-week, and wine ℥viij. No extra porter.

18th.—Cannot take full diet. To resume the chop and light pudding, with wine ℥vj. To get up an hour each day.

20th.—Not so well, apparently from getting up. Discharge increased. Ordered to keep his bed.

22nd.—Has had a bad night; feels unwell; the wounds look ulcerative and sloughy. Ordered wine ℥viij., and lot. arg. nit. gr. ij. ad aq. ℥i.

25th.—Apparent benefit from the lotion.

June 9th.—The boy has continued well for the last fortnight, is getting fat, and feels much stronger in the arm. The wounds are healing, and the discharge is less. Ordered less wine, and the lotion to be reduced in strength one-half.

21st.—Still progressing favourably. The wound on the inside of the arm has healed, but Mr. Curling, on probing the outer wound, found some dead bone, and extracted a piece of the external condyle (about half an inch square).

29th.—The arm is now perfectly well, though, of course, with a very limited amount of motion in the elbow. May now leave off the splint, and use the joint slightly.

30th.—Made an out-patient.

GUY'S HOSPITAL.

Case 3.—CRUSHED ELBOW—REMOVAL OF THE ARTICULATING EXTREMITIES OF THE BONES—RECOVERY.

(Under the care of the late Mr. MORGAN.)

While going round the wards of Guy's Hospital one day about two years ago, Mr. Birkett was good enough to direct our attention to the case of a man whose elbow-joint had been removed after compound fracture nineteen years ago. He had been admitted a few days before on account of a bruise to the same elbow, which he had received in a recent injury, and there was an amount of swelling about the part which unfortunately precluded any attempt at careful examination. The particulars of the case were as follows, and were communicated to us by the patient himself, and confirmed by Mr. Cock and Mr. Birkett, both of whom well remembered its occurrence:—

Thomas Dight, now aged 50, a servant at one of the City Guilds, and accustomed to very free living, was admitted in the night of June 7, 1853, under the care of Mr. Morgan. In returning home partly intoxicated he had fallen on London Bridge, and sustained, from its being run over by a cart, a most severe compound fracture of the right elbow. The bones comprising the joint were completely smashed, and the soft parts greatly contused. No necessity existed for the use of either saw or bone forceps, but no fewer than nine pieces of loose bone, some of them of considerable size, were taken out, comprising the condyles of the humerus and extremity of the ulna. A good deal of bleeding occurred. During the month following the accident,

the man was in the greatest danger of his life, from the effects of erysipelas of the arm and most profuse suppuration from the elbow. He also suffered from delirium tremens. Amputation was repeatedly urged, but was obstinately refused. Under the most liberal use of stimulants at length things began to improve, and recovery ultimately resulted. The man was in the Hospital (excepting for a short interval, during which he was sent out to try the effect of country air) from June to February; and a full year elapsed before he could make use of his arm. In the course of the healing four other pieces of detached bone had worked themselves out. Poulticing had been the chief local treatment pursued by Mr. Morgan.

When the healing was once completed the recovery appeared to have been perfect, and no further trouble, except from attacks of rheumatism, had occurred. The man stated, that during the eighteen years between the recovery and the date of the accident from which he was now suffering, he had enjoyed the use of his arm nearly perfect in all its movements.

THE PROVINCIAL
PRACTICE OF MEDICINE AND SURGERY.

LEEDS GENERAL INFIRMARY.

Case 4.—COMMINUTED COMPOUND FRACTURE OF THE ELBOW-JOINT—EXCISION OF THE JOINT—RECOVERY.

(Under the care of Mr. T. P. TEALE.)

May 2, 1853.—James Baxter, a healthy-looking man, aged 20, was admitted into the Leeds Infirmary, having received a severe injury of the left elbow-joint, from being caught by machinery in a mill. The back part of the joint was torn open, and the integuments over the outer condyle destroyed. The ends of the humerus, radius, and ulna were projecting through the wound, the articulating portions of the humerus and ulna being broken into several fragments. Mr. Teale made a longitudinal incision, about four inches in length, through the injured parts at the radial aspect of the joint. By this incision, and the transverse wound into the joint already existing, the bones were sufficiently exposed to admit of the application of the saw, by which was removed two inches of the lower end of the humerus, one inch and a half of the ulna, and the head of the radius. The wound was covered with wet lint until the bleeding had ceased. In five hours the clots were removed from the wound; the edges, when they were not bruised, were united by sutures. The limb was laid in an easy prone position, on an obtuse-angled splint, and wet lint applied over the wound. The case proceeded favourably without interruption.

In the fourth week slight passive motion was employed.

May 30.—Wound contracting rapidly. He is allowed to sit up a little.

June 13.—He is going about, and is quite well and hearty.

27th.—The muscles are beginning to act upon the joint. The wound is nearly closed. He is made out-patient.

July 18.—He can move the forearm by the action of its own muscles through the range of half a right angle.

August 1.—Wound entirely healed. Power of moving the joint increased.

Sept. 20.—It is now twenty weeks since the operation. By the exertion of the muscles of the injured limb he can touch the shoulder on that side with his thumb; can fully extend the forearm, and can perform perfect supination and pronation. He has lifted a five pound weight to the level of his head. By measurement, the new-jointed arm is one and a quarter inch shorter than the other.

SALFORD ROYAL HOSPITAL.

Case 5.—COMPOUND DISLOCATION OF ELBOW—EXCISION OF THE PROJECTING BONE—RECOVERY.

(Under the care of Mr. WINDSOR.)

George Alleroft, aged 14, admitted on March 18, 1856. A pale-faced lad, with lank cheeks, and general ill-fed appearance; a paronychia of the right thumb shows still better the present state of his constitution. In front of the left elbow-joint there is a nearly transverse wound, through which the whole of the inferior extremity of the humerus has protruded; for about two inches of its extent, the median nerve is exposed, and thrown forwards by the humerus, on which it rests; the brachial artery is exposed to the extent of half-an-inch, and is felt pulsating on the inner side of the wound; there is no hæmorrhage at present.

The forearm is somewhat swelled, and ecchymosed; both the radius and the ulna are fractured near their middle (simple fracture); the radial artery can be felt pulsating near the wrist, although not very distinctly; there is no injury to be found elsewhere.

This accident was caused by machinery, but he could only give a very confused account of the manner in which it had happened.

When admitted, he was cold and shivering; half a drachm of tinct. opii in some hot brandy and water was at once administered. After a little time he rallied pretty tolerably; then the projecting portion of the humerus was sawn off, and the sharp edges of the portion left carefully removed: reduction was then made without the slightest difficulty. Some hæmorrhage from ruptured veins now took place, which, however, appeared of little importance, so that the wound was at once closed by a few strips of wet lint. The arm was then placed in a half-flexed position on a wooden tray, and irrigated with cold water, a continuous stream being secured by a cotton wick acting as a syphon.

March 19.—Pulse 108, rather full; tongue clean; elbow rather painful; forearm softer, less swelled, and pale in colour; its arteries beat powerfully; upper arm perfectly normal; continues cold. Ordered small doses of antim. pot. tart. with calomel.

Vespere.—Forearm rather more swelled, hot; tongue a little dry; some thirst; not much pain.

20th.—Has had a good night; tongue clean and moist; pain less; forearm less hot, but a little more swollen.

21st.—Pulse 96; tongue clean and moist; arm rather hot.

Vespere.—Pulse 108; forearm hot and swollen; no pain.

23rd.—His bowels were moved several times yesterday; they had not been open before from the morning of March 18; they acted several times during the night, which was a good one in other respects; pulse 120.

Vespere.—Pulse 110; no pain; the bowels have acted several times during the day.

24th.—Good night; no pain; pulse 102.

25th.—To discontinue the medicines; generous diet.

26th.—Pulse 108; tongue clean; no pain; arm cool and soft; to have a grain of quinine three times a-day.

27th.—Pulse 96.

He continued in this manner, without pain or constitutional disturbance, up to April 9, when a very slight discharge of pus began to appear. Ordered to have the dressings occasionally wetted with liq. sod. chlorin.; to take a bottle of lemonade occasionally.

April 15.—The dressings are removed for the first time; the wound is completely filled up with granulations, and has at its outer extremity partially cicatrised; there is hardly any pus; wet lint was again applied. Ordered to continue irrigation, etc.

A fortnight after the last date, the second dressing took place; the irrigation was now discontinued, and the wound covered with strips of adhesive plaster; in a few days more, a gutta-percha splint having been fitted on, he began to walk about; the quinine was now discontinued.

He was kept in the house till May 20, when the wound being not larger than a pea, he was discharged; he had gained considerably by his residence in the Hospital, his general health was much improved, and his face, formerly of a tallowy whiteness, had now acquired some colour. Partial anchylosis of the elbow had formed, the forearm being moveable to a slight extent on the arm; he has considerable power over the hand, and seems to be gaining some over the forearm; the fractures of the radius and ulna have united.

CAMBRIDGE UNIVERSITY.—The Degree of B.M. was conferred on Saturday last on Robert Cameron Galton, Esq., of Trinity College; and on Monday on Edmond Henry Day, Esq., of Caius.

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Medical Times & Gazette.

SATURDAY, JULY 5.

IMPURE WATER A SOURCE OF DISEASE.

In our last Number we briefly alluded to a Report lately presented to the President of the Board of Health by Mr. Simon, on the connexion between the last outbreak of epidemic cholera in London, and the consumption of impure water. We also took occasion to speak in terms of commendation of the laborious researches instituted and conducted by Dr. Snow, upon the influence of foul water in propagating disease. We must, however, again express the opinion to which we have, on former occasions, given utterance, that, while allowing all credit to this Physician for the patience, perseverance, and skill with which he has carried out his investigations, we are by no means prepared to adopt the hypothetical views which he has broached in relation to the cause of epidemic cholera: still we fully admit the connexion existing between impure water-supply and the existence of epidemic disease; and although we have at present no theory to offer in explanation, yet we think that the subject, in its practical bearings, deserves the closest attention of the Medical Profession, and of the Legislature.

It is necessary to mention that the Report now before us is the last instalment of the information sought for by the *Committee for Scientific Purposes*, appointed by the *Medical Council*, which, it will be remembered, was constituted by Sir Benjamin Hall in the autumn of 1854. The Report originally presented by the *Committee* was incomplete, inasmuch as it omitted the statistics upon the relation existing between water-supply and disease; but the details connected with this subject having at length been collected and methodised, the present Report by Mr. Simon may be considered as a kind of supplement to that formerly published. Mr. Simon has gathered together the information supplied by others (and among the chief of his informants is, we believe, Dr. Snow), and he has been enabled to develope results which are certainly of a very startling and most suggestive character.

It appears that nine districts on the southern side of the River Thames, namely, St. Saviour's, St. Olave's, St. George's Southwark, Bermondsey, Newington, Lambeth, Wandsworth, Camberwell, and Rotherhithe, were supplied with water during the epidemic of 1854 by two rival water companies, viz., the Lambeth Company, which pumped its water from the Thames at Ditton, and the Southwark and Vauxhall Company, which derived its water from the Thames at Battersea. Microscopical and chemical examination had proved the impurity of the latter fluid, which "was not only brackish with the influence of each tide, but contaminated with the outscourings of the metropolis, swarming with infusorial life, and containing unmistakable molecules of excrement."—*Mr. Simon's Report*, p. 5.

Now upon investigation it was found that about 25,000 houses in the above-named districts derived their water-supply from the Lambeth Company, and nearly 40,000 from the Southwark and Vauxhall Company; and it was further ascertained that in the former houses, comprising a population of about 166,906 persons, there occurred 611 deaths from cholera, being at the rate of 37 to every 10,000; while in the latter houses, representing a population of about 268,171 persons, there occurred 3,476 deaths, being at the rate of 130 to every 10,000 persons. The persons drinking the water drawn from Battersea, therefore, suffered three times and a-half as great a mortality as the population which drank the water derived from Ditton.

One very curious circumstance detailed in this report deserves special attention. It appears that in 45 streets examined, it was found that the houses, taken collectively, were half supplied by the Lambeth Company, and the other half by the Southwark and Vauxhall Company: exactly 1,517 houses being supplied by each. Now of these 3,034 houses with about 20,000 inmates, the half which were supplied by the Lambeth Company, in 1853-4, lost 57 persons by cholera, and the other half supplied by the Southwark and Vauxhall Company, lost 164; or, in other words, those persons who drank dirty water, suffered in a far greater proportion than those who drank the purer fluid. It appears, however, that in the previous epidemic of 1848-9, the proportions were reversed, for at that period the persons who drank the Lambeth Company's water lost 164 of their number by cholera, while those who drank the Southwark and Vauxhall Company's water lost only 95; and this difference is said to be due to the circumstance, that in 1848-9, the Lambeth Company's water was even more impure than that of the Southwark and Vauxhall Company, and that the different amount of illness at the two periods is explained by the fact, that in the intervening time the Lambeth Company had very much improved its water supply, while the rival company had continued the supply from its usual sources. These results, although they appear very striking, and are very ingeniously explained by Mr. Simon, require, we think, further explanation and corroboration from other data; nor can we altogether agree to the proposition, that the different rate of mortality at the two great cholera epochs is *wholly* to be explained by reference to the water-supply.

There can, we think, be little doubt that the poisonous matter which generates epidemic diseases exists in the air we breathe and in the water we drink; and it is therefore the duty of the legislator, under the advice and guidance of the members of the Medical Profession, to endeavour to ascertain the conditions under which air and water become poisonous to mankind. The problem is undoubtedly difficult of solution; for, although micro-chemistry may detect in our drinking water the traces of decomposing animal and vegetable matter, we cannot assume that these are the only exciting causes of epidemics, which seem to require for their full development certain conditions, hitherto mysterious, of climate, locality, and predisposition. Nevertheless, it is a matter of intense interest to purify, as far as possible, the streams which flow through large cities, and which, while they supply drinking water to the populations, are also made the receptacles of sewage. These two purposes, which have been effected by all great rivers since the earliest dawn of civilization, appear to be quite compatible with each other, while the

populations are scanty and the river extensive. The *debris* of animal and vegetable life are wafted down the course of these streams, and, together with the pulverized fragments of disintegrated rocks, originate new and ever-varying scenes of fertility and abundance, while the very products themselves of organic decomposition are metamorphosed into multitudinous forms of vegetable and animal life, adorning and gladdening the fields and the groves, sporting in the rivers, or swarming in the ocean. But this mutual and harmonious interchange of death and life, of decomposition and recomposition, of disorganization and symmetry, is disturbed when cities become overgrown, and the rivers saturated with the products of human and brute decomposition; and it then becomes the province of science to discover the means of restoring the balance, and promoting the original beneficent designs of Nature.

UNIVERSITY MEDICAL EDUCATION.

The University of Dublin continues its steady course of improvement in the education of candidates for degrees in Medicine; and the most recent step taken in this direction, and carried into effect during the past week, suggests to us that it may be both interesting and profitable briefly to trace the steps by which the system pursued in this ancient University has been carried to so high a degree of perfection as to be worthy of being adopted as a model, and by which the vigour of youth, as it were, has been grafted on the stability which naturally attaches to the acts of the older Universities.

It is not very many years since the Board of Examiners for the degree of Bachelor of Medicine consisted of but four individuals, viz.: the Regius Professor of Physic, the Professor of Anatomy and Surgery, the Professor of Chemistry, and the Professor of Botany. Of late years, the King's Professors of the City of Dublin, on the foundation of Sir Patrick Dun, viz.: the Professors of the Institutes of Medicine, of the Practice of Medicine, and of Materia Medica and Pharmacy, together with the Professors of Midwifery and of Medical Jurisprudence of the College of Physicians, have been added to the Examiners; and the President and Censors of the College of Physicians are entitled to be present and to vote at the examinations.

In 1849, a separate chair of Surgery was established; attendance on the lectures being necessary for attaining the purely Medical degree. This was followed, in 1852, by the establishment of a separate school of Surgery.

By the alterations and additions just described, a Board has been formed to examine in every branch of Medical science; and it is so constituted that the majority of those who decide the fate of the candidates, namely, the University Professors of Anatomy, Surgery, Chemistry, and Botany, and the President and Censors of the College of Physicians, have no pecuniary interest whatever in the result of the examination, and derive no emolument from the pupils; for Students in Arts, having their names on the College books, are permitted to attend the lectures necessary to qualify them for their Medical degree with each of the University Professors, free of expense.

An important change has also been made by the recognition of Medical studies as portions of the Arts course. A regulation has been adopted by which the *Professional Student*, that is to say, the Student in Medicine, Divinity, Law, or Engineering, as the case may be, is exempted from certain portions of the course in Arts during the last two years of its continuance, on condition of his certified attendance on the lectures in the Faculty in which he has matriculated. This we look upon as a most wholesome and important change. It provides that the Medical Student shall receive a full education in Arts, so as to qualify him for his A.B. degree; in his classical, mathematical, and physical studies he stands on the same level with the Students of Divinity and of Law; while the value of his Medical studies, as a branch of general education, is admitted.

Lastly, an important change has been made in the mode in which the examination for the degree of Bachelor of Medicine is conducted. Formerly the candidates were examined separately, and upon one day, by the whole Court of Examiners, the examination being entirely *vivâ voce*. By a late decree of the Board of Trinity College, it is ordained that the examinations shall continue for two days, occupying four hours of each day; that they shall take place in the public hall of the University; that the examination of the first day shall be conducted by means of printed papers; one, containing five questions, furnished by each Professor in the School of Physic, in the presence of the Regius Professor of Physic, or of some Professor deputed by him, while the second day is devoted to a *vivâ voce* examination in class by the entire Board of Examiners.

The examination for the Medical degrees previous to the late commencement, held on the 2nd of July, were conducted in accordance with these regulations. On the day following the last examination, the Professors met, in conformity with the above decree, to decide on the successful candidates, and also, by comparison and analysis of the answering, to determine their relative merits; thereby, and for the first time, assimilating the examination for Medical degrees to that for the other degrees in the University, and also to the examinations for honours. It is intended that the names shall appear in the University calendar in the order of merit. This arrangement will obviously pave the way to the establishment of University Medical honours.

The general result is, therefore, that the University of Dublin, which has long possessed a full, and, latterly, a greatly extended School of Medicine,—embracing, in addition to the Chairs of Anatomy, Surgery, Chemistry, Botany, Practice of Medicine, Institutes of Medicine and Materia Medica, those of Midwifery and Medical Jurisprudence; and demanding further, a full attendance on Practical Chemistry and Practical Anatomy, as well as on the practice of a purely Medical and also of a General Hospital; while, in addition, the degree of Bachelor of Medicine is unattainable without graduation in Arts at the termination of a four years' course in that department;—presents its *alumni* with degrees representing the highest amount of qualification required by any educational body in the United Kingdom.

On a future occasion we shall speak more particularly of the School of Surgery established within the last few years in this University.

THE WEEK.

We have received some communications representing the injustice of excluding the University of St. Andrew's in Scotland from taking any part in the new Scheme of Medical Education, proposed in the amended Medical Reform Bill. It certainly appears that the exclusion of this ancient University from the category of Scotch Colleges is somewhat unjust, and is inexplicable upon any definite or substantial grounds. If it be urged that St. Andrew's has no complete Medical school, it may be truly stated that the London University has no Medical school at all: King's College, Aberdeen, has but one Medical Professor, and even the Universities of Oxford and Cambridge are still very deficient as schools of Medical science. The Degrees of the London University are, it is true, justly held in very high esteem, and the small number of candidates who take those degrees are among the *élite* of the Profession; but it should always be

recollected that the University of London has an allowance of £5000 a-year from the State, by which provision it is rendered quite independent of graduation fees. We think this a very excellent plan; nevertheless, it appears to us, either that the University of London might now very well stand by itself, like the other national Universities, or that the Universities generally, including those of Scotland and Ireland, should also be subsidized by the Government. At the same time we candidly confess our belief, that, in general, the Scotch Universities are too lax in granting degrees in Medicine, and especially blame them for not insisting upon a more competent general education on the part of their *alumni;* but, we are not sure that the University of St. Andrew's is alone, or chiefly, blameable in these respects.

The College of Physicians of Edinburgh has published a paper, setting forth its reasons for supporting the amended Medical Bill now standing for discussion in the House of Commons. This document by the Edinburgh College is very fairly and logically drawn up, and shows that the prestige of the College would be in no way endangered by the passing of the Bill, for that Medical men have always shown sufficient ambition to aim at the highest honours within their reach, and have never been contented with a *minimum* of qualification, such as that which the Bill proposes to enforce. The College also points out the great advantage of a general preliminary education for all Medical Students; and the absolute necessity of placing the Medical Educational Establishments under some central authority. The College of Physicians and Surgeons in this country have been unnecessarily alarmed, in our opinion, at the prospect of the passing of the amended Bill. We feel convinced that the establishment of a *minimum* rate of qualification would be of immense service to the whole Profession; and are sure that the degrees and licences of Colleges and Universities would be sought for with greater avidity than ever, while the recipients of such honours would be far better entitled to receive them than is sometimes the case under the present system.

A paragraph has gone the round of the papers, and has not been contradicted, to the effect that the convict Palmer made some kind of half-confession to the chaplain of Stafford gaol. From the chaplain's statement it appears that Palmer felt the necessity, if he confessed to the murder of Cook, of confessing also to the murder of his wife and his brother; but he subsequently declined to make any full confession at all. The public impression of Palmer's guilt is, we think, universal; and even his obstinate silence in his last hours is quite inconsistent with innocence; for a man about to be executed unjustly would have given an explanation, at least, of some of the circumstances of the murder of which he was accused; and certainly Palmer was amply cognizant of most, if not all, the facts connected with the dark deed, yet he maintained a dogged reserve upon every transaction in which he was known to be engaged.

We find, with very great regret, that Mr. Snape, the Medical Superintendent of the Surrey County Lunatic Asylum, has been called upon to put in bail to take his trial at the ensuing Old Bailey Sessions, for having caused the death of a pauper lunatic confined in that establishment. We feel convinced that there is some agency at work in this affair, the nature of which, at present, we can only surmise; and shall refrain from offering further observations upon the case until a full and fair investigation has taken place.

The case of Mr. Dyce Sombre has at length been settled, and this time, we hope, finally. It will be in the recollection of all, that this unfortunate gentleman, who possessed an enormous fortune, left by will the great bulk of it to the East India Company, with which he had all his life before been at variance, to the prejudice of his own wife and family, against whom he entertained ungrounded suspicions. The Judicial Committee of the Privy Council have come to a decision pronouncing Mr. Dyce Sombre insane when he made the will in question, thus confirming the former sentence. The costs of the proceedings, however, are to be defrayed out of the estate; and it is gratifying to know that, notwithstanding the enormous law expenses, the capital fund is so large as to be comparatively untouched, the interest alone being, we believe, sufficient to defray the costs.

REVIEWS.

The Complete Handbook of Obstetric Surgery; or, Short Rules of Practice in every Emergency, from the Simplest to the most Formidable Operations connected with the Science of Obstetricy. By Charles Clay, M.D., Manchester, etc. etc. London: 1856.

The plan of this book is a useful one, inasmuch as it contains in small compass, what may be called the *cream* of midwifery treatises; that is to say, those entirely practical portions, to which the Practitioner would naturally turn, if at a loss in an emergency. The reputation of Dr. Clay is a sufficient guarantee for the utility of the book; yet we may say, with the critic in the "Vicar of Wakefield," that "the picture would have been better if the painter had taken more pains." The work bears marks of haste and of defective arrangement, and it has neither Index nor Table of Contents,—most serious objections to a book intended for hurried reference. The arrangement, though said to be alphabetical, is really a random one; for instance, *Laceration of perinæum* is at page 145, and *Perinæum, to support*, at page 195: other subjects are equally disjointed. We hope that in a second edition Dr. Clay will present us with the results of his really valuable and extensive experience in a more matured shape.

The Franklin Expedition from first to last. By Dr. King, M.D. Pp. 224. London. 1855.

Dr. Richard King, the author of the work before us, a man of very muscular frame, indefatigable activity, and great acuteness, went as Surgeon and Naturalist to the Expedition, which was despatched by land to the North Coast of America in 1833, under Sir George Back, in search of Sir John Ross. During this journey, he showed that he possessed all the requisite mental and bodily qualifications for an Arctic voyager. He afterwards published several conjectural statements respecting the geographical configuration of the North Coast of America, (more particularly the idea that North Somerset is a peninsula, and not an island,) which have been most remarkably verified by the discoveries of succeeding travellers, and which testify most strongly to his power of forming correct deductions from the facts he observed.

Now, recommending our readers to bestow a hasty glance on any late map of North America, we ask them to notice, first of all, that the space between that Continent and the North Pole is, for the most part, occupied by an archipelago of horrible rocky islands, separated by narrow and crooked passages blocked up with perpetual ice, except that at some parts there is just room between the ice and the land to admit of the passage of ships during the summer. Then we ask them to notice the course of the three great rivers which run northward into this archipelago: the Great Fish River, or Back River, which debouches just at the western side of the peninsula of North Somerset; the Coppermine River, about four degrees further west, opposite to that huge desolate island, parts of which have received the names of Banks's Land, Woollaston Land, and Victoria Land; and the Mackenzie River, again four degrees further to the west.

Then, let us recall to our reader's recollection, that in 1845 the unfortunate Sir John Franklin was sent in the Erebus and Terror, with instructions to sail from Baffin's Bay through Lancaster Sound and Barrow Straits, into the heart of the North American archipelago; thence across this archipelago to about the longitude of Cape Walker; thence southward

and westward to Behring's Straits. But, should he find his progress arrested by ice, he was desired to consider whether Wellington Channel, which leads northward out of Barrow Strait, might offer a more practicable outlet from the archipelago.

Five weary years passed without tidings of the voyagers. At last, in 1850, the discovery was made that Franklin had passed his first winter—the winter, namely, of 1845-46—at Beechy Island, a small island just at the point where Wellington Channel leads up out of Barrow Straits. But search for his succeeding steps long seemed desperate. Expedition after expedition was sent in vain. Captain Austen in 1850 traversed the central portion of the Archipelago; and sent boat and sledge parties westward to Melville Island, and southward to Cape Walker. The west and north coast of North Somerset had been explored by Sir James Ross in 1849. Sir E. Belcher surveyed Wellington Channel in 1852-53; Captain Maclure had gone through Behring's Straits in 1850, and had passed the winter of 1850-51 in Baring's Island, distant about seventy miles from Melville Island; and being unable to proceed further, was about to abandon his ship, when he was rescued and brought over the ice to Melville Island by a boat party from Sir E. Belcher's expedition, thus accomplishing the north-west passage, or, rather, showing that it could not be accomplished in ships at all. Moreover, Sir John Richardson, in 1848, had gone down the Mackenzie, the westernmost of the three rivers above enumerated, and explored the coast between it and the Coppermine River; and yet each and all of these expeditions failed to discover any trace of the lost expedition, save that of their first winter in 1845-46 on Beechy Island.

At last, in 1854, Dr. Rae, in the employment of the Hudson's Bay Company, was surveying in Pelly Bay, on the eastern side of Boothia, when he learned from the Esquimaux that a party of forty white men had perished from want of food, as was alleged, some distance to the westward, and not far from a great river containing falls and rapids. They were said to have given the Esquimaux to understand that their ships had been crushed in the ice, and that they were going to where they expected to shoot deer; but it was said they all died of hunger. That there was some truth in this story—at least, that Franklin had perished hereabouts—was evident from the relics, in the shape of spoons and forks marked with initials, which Dr. Rae purchased from the Esquimaux, and brought with him. And still further evidence was obtained in 1855 by Mr. Anderson, a factor in the employ of the said Company, who went down the Great Fish River, to Montreal Island. Here abundance of relics were found, including a boat of the Terror, which had evidently been hacked to pieces by the Esquimaux; but no written documents were discovered, and no bones, or other remains of the unfortunates who had perished.

Thus much respecting the Franklin expedition, which comprised no less than 138 noble fellows, including Harry D. S. Goodsir, Alexander M'Donald, John S. Peddie, Hodgson, and other zealous members of our Profession, who perished at the very spot of all others to which no help was sent, and at which no search was made; for it must be evident, from a glance at the map, that rivers, coast, seas, and islands were again and again explored, with the exception of the particular spot where at last the death traces of the expedition were discovered.

But it is due to the author of the work before us to say, and we should not be doing our duty as Medical Journalists towards a member of our own Profession, if we did not say emphatically, that he had all along predicted the exact spot where the lost expedition would be found, and this with a precision which reflects infinite credit on his sagacity. Both before the Franklin expedition had started, and all along during the weary years that elapsed till traces of it were found, and ever since, Dr. King has been fruitlessly besieging the Secretaries of the Admiralty and of the Colonial Department with suggestions, expostulations, entreaties, and offers of personal service,—all rejected with more or less disdain—but we now see, when it is too late, that, had they been accepted in time, Franklin would, in all probability, have been saved; and that even now, it is due to this great nation, that a more precise account should yet be obtained, by this instrumentality, of the precise manner in which the whole tragedy was consummated.

We may mention, in the first place, Dr. King's often reiterated opinion, that *small* parties, proceeding by *land*, and so starting from a fixed and known basis of operation, are much more likely to lead to geographical discovery than ship expeditions. This is a topic we cannot dilate upon; but when we mention the loss of the 138 souls in the Franklin calamity, and the abandonment, at one *coup*, of five ships by Sir E. Belcher in 1852, and the hundreds of thousands of pounds lost to the country in these ill-starred ship voyages, and the fact that Franklin's fate was learned at last by a land party, we think that Dr. King will be deemed to have reason on his side.

In the year 1845, while the Franklin expedition was starting, Dr. King urged the Government to send him down the Great Fish River, to carry on explorations and to co-operate with Franklin. In June, 1847, he thus speaks in a letter to the Admiralty:—

"The position that I should assign to the lost Expedition is the western land of North Somerset. If Sir John Franklin is to be relieved, it must be in the summer of 1848."

Later in the same year, he again implored Government to take his advice, and pointed out the inutility of Sir John Richardson's expedition to the Mackenzie River. In February, 1848, he repeated his vaticinations, and volunteered by a rapid journey to reach the Great Fish River at the close of that very summer. In 1850, the same offer, the same refusal. Again, when Dr. Rae, in 1854, brought home the appalling story of Franklin's death, with the gratuitous addition of horrors which we are too indignant to listen to, Dr. King made another and another offer to go and verify the story, to find the remains if possible, and give them honourable burial;—but in vain.

We have devoted a large space to the consideration of Dr. King's book, which we strongly recommend our readers to peruse for themselves, if only for the interesting and too-probable solution which he offers of the real facts of Franklin's fate. We regret the tone of irritation into which he is sometimes betrayed, (arising from neglect,) which is the less necessary, inasmuch as his sagacity, and pertinacity in recommending the true line of search, constitute the only bright spot in this disastrous business. Dr. Rae has received the reward of £10,000 offered for the discovery of Franklin's remains; we verily believe, that had one-tenth of the sum been granted to Dr. King eight years ago, Franklin might have been brought home alive.

Records of Obstetric Consultation Practice, and a Translation of Busch and Moser on Uterine Hæmorrhage, with Notes and Cases. By Edward Copeman, M.D., F.R.C.S., Physician to the Norfolk and Norwich Hospital, etc. London: 1856.

This work consists of a series of Essays on puerperal fever, on the use of the vectis, on the induction of premature labour, on puerperal convulsions, and on craniotomy, in addition to the translation of the essay on Hæmorrhage, and a tolerably copious amount of original cases. In treating puerperal fever, Dr. Copeman repudiates bleeding, restricts leeching to cases exhibiting great tenderness; denounces the common routine of calomel and opium (in which respect, so far as the vulgar idea goes of mercurializing the system, we heartily agree with him) and places his trust in turpentine in drachm doses, or in the form of enema, and in turpentine fomentations. He also recommends the vagina to be washed out daily with warm water. By the use of these remedies, Dr. Copeman believes that fifteen out of twenty-one cases, which he has met with in the last five years, have recovered.

Of the vectis, Dr. Copeman says that he uses it as a *hook* to *pull* with, and not as a lever to *prise* with, and he prefers it in most cases to the forceps. His mode of inducing premature labour, is by passing a large bougie, or tube of a stomach pump, into the os uteri, and separating the membranes without rupturing them. The other essays offer nothing particular for remark, except that the whole work affords creditable evidence of the writer's scholarship, and of his professional experience.

On the Nature of Cholera, as a Guide to Treatment. By William Sedgwick. London: 1856.

Mr. Sedgwick tells us, "that the following remarks on the nature of cholera are intended to illustrate the theory which refers the disease to functional disorder of the central parts of

the sympathetic nervous system, excited through the medium of the stomach." He evidently has worked out the theory with much industry, and supports his views with great erudition. The practical result seems to be a recommendation to use small doses of turpentine with liquor potassæ, in order to combat that paralysis of the sympathetic, on which he believes the disease to depend; but he very conscientiously states, that his mode of treatment is scarcely more successful than that of others. Mr. Sedgwick must be a bold man, to reproduce a theory which, as he tells us, was hissed out of Paris five and twenty years ago. Whether it will be applauded in London now, we do not venture to say.

Varicose Veins, their Nature, Consequences, and Treatment. By Henry T. Chapman, F.R.C.S. London, 1856.

The greater part of this work consists of papers which have already appeared in our columns. We need, therefore, only recall the attention of our readers to Mr. Chapman's mode of applying pressure to dilated veins, by means of strips of wetted linen, which he believes to be more advantageous than the plasters and bandages commonly applied.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON OSTEO-MYELITIS AFTER AMPUTATION.

M. Valette, one of the surgeons attached to the French Army of the East, read before the Paris Society of Surgery a paper upon the osteo-myelitis which prevailed epidemically at Constantinople among patients who had undergone amputation in consequence of injuries received at the battles of Alma and Inkermann. We furnish the conclusions he arrived at, and an abstract of the discussion the paper gave rise to.

1. Osteo-myelitis may be observed in the acute or the chronic form, the former being by far the most frequent. 2. It is always accompanied by purulent infection, the two conditions seeming to arise simultaneously under the influence of the same general causes, and it is usually possible to determine the part each plays in the manifestation of the morbid phenomena. 3. In the acute form vitiation of the air acts as a predisposing cause, and the opening of the medullary canal of a long bone as a determining cause. 4. The general symptoms may be mistaken for those of purulent infection, but the diagnosis may be cleared up by examining the stump. There is observed a greyish fungoid projection of the medulla, detachment of the periosteum, protrusion of the bone through the lips of the wound, and an excessive issue of fetid pus. 5. The affection lasts for from three to fifteen days, and is always fatal. 6. The general anatomical character, when present (for sometimes nothing beyond remarkable fluidity of the venous blood is observed) consists in ecchymotic deposits or abscesses of the lungs, liver, muscles, etc. The local ones consist in detachments of the periosteum, in the ramollissement and purulent infiltration of the medulla in the superacute form, in an increase of its density, and a reddish-brown coloration in the first stage of the acute form, and the formation of minute abscesses at several points of its course in the second stage of this. 7. Local treatment is of no avail unless the whole of the medulla that is affected is removed by disarticulation. The general treatment is guided by one indication, that of combatting the adynamia by generous diet and the use of quinine. 8. In the chronic form the local manifestations are more slowly produced, and there is no hernia of the medulla. 9. The onset of the chronic form is masked by the general symptoms of pyæmia, but we may suspect it where we find a notable increase of suppuration not containing reddish streaks, together with swelling and hardness of the stump. 10. The chronic form, when existing elsewhere than in the femur, does not immediately menace existence, but constitutes a morbid state in which pyæmia is imminent, and in which the vital powers may become exhausted by the duration of the disease and the successive formation of abscesses and fistulous tracks. 11. The etiology is very obscure as regards the predisposing causes. The determining causes are, as in the acute form, the opening of the medullary canal or of the areolæ of the articular extremity of a long bone; and perhaps the concussion of the medulla by the projectile may exert some effect. 12. The general characters are those of purulent infection, while the local anatomical changes consist in the transformation of the medulla into a yellowish pus, the detachment of the periosteum, and the presence of a layer of fetid pus at the surface of the bone. 13. The general treatment must be directed against the purulent infection and diarrhœa, and the local treatment consists in the resection of the portion of bone deprived of periosteum, or, in case of relapse, in disarticulation of the bone, unless the femur or fibula be the bone in question. 14. These propositions also apply to osteo-myclitis following resection.

M. Legouest, who had witnessed the cases in question in the East, does not approve of these secondary operations. He has made sixty autopsies of patients who died after amputation, and always finding the lesions of purulent infection, he does not see any precise reason for separating the two affections. M. Giraldès suggested that the inflammation of the medullary tissue might owe its propagation and extent to the longitudinal fissures traversing the long axis of the bone, and which are a common complication of fracture by firearms. M. Larrey believes that purulent infection may arise from different sources, and that osteo-myelitis is a frequent origin. M. Gosselin does not regard purulent infection as a fever or vague disease without localisation. He believes there must be a *point de depart*, and that this point is here furnished by the inflammation of the medullary tissue. Pus is not always found in the large veins; but it is often found in the medullary cavity. In stating the fatal character of the affection, he thinks M. Valette has not sufficiently distinguished between the bones affected, the same lesion being much less grave when affecting the ulna or radius, or even the humerus, than when affecting the femur or tibia. Osteo-myelitis may engender purulent infection, either by the passage into the blood of pus formed in the small veins of the bone, or by the absorption of a toxical matter. He inclines to the latter hypothesis, inasmuch as we may have purulent infection without a drop of pus entering the circulation; while it is probable that so special a structure as the medullary tissue is susceptible of containing a virulent principle. M. Giraldès pointed out the inconsistency of this theory with the fact that the affection is less likely to follow injuries of the bones of the upper than those of the lower extremities, although the former contain medulla just as the latter do.

M. Huguier enumerated the various circumstances which may explain the greater gravity of fractures of the lower extremity. 1. The general shock and local commotion of the limb are much greater. 2. The detachment, laceration, and destruction of the periosteum are much more considerable. 3. The great density of the tibia and femur explains the considerable number of the splinters, their length, their dissemination, and their distant implantation in the soft parts, together with the wounds of veins, muscles, and vessels. 4. Fissures of the diaphysis four or five inches long, are not rare in the tibia and femur, while they are quite exceptional in the bones of the upper extremity, the ball, owing to their smaller size, dividing them very clean. 5. The resistance and size of the bones of the lower extremity explain how a ball may become implanted either in its entire state or in fragments. 6. The thickness of the thigh and leg explain how foreign bodies may become lost amidst them more easily than in the arm, which they usually traverse through and through. 7. Hence inflammations, and frequent, large, and tardily recognised abscesses. 8. The aponeuroses of the lower extremity are very strong, and the apertures made by balls are insufficient for the issue of the discharges and of foreign bodies, leading to more severe and extensive inflammation and strangulation. 9. Finally, for the above reasons, the principle is generally agreed upon, that amputation of the upper extremity should be exceptional, its fractures usually terminating favourably, while to leave the lower limb unremoved would be often to consign the patient to death. M. Larrey observed that M. Huguier's observations were confined to the effects of projectiles of small calibre, as being those most frequently met with; but military surgeons are familiar, especially at sieges, with the injuries produced by the largest, producing large and dangerous injuries upon both extremities, although those of the lower present a greater predisposition to primary or secondary complications. The accidents produced by these are not only local lesions, limited to the seat of fracture, as in the case of balls from portable arms, the

effects being propagated to a distance by reason of the concussion of the limb, the contusion and attrition of the hard and soft parts, the fissuring and splintering of the bones, articular lesions, osteo-periosteitis with necrosis, osteomyelitis and its consequences. The improvements which have been made in modern projectiles, have led to an aggravation of the effects they produce. M. Deguise referred, as in part explaining the difference in the results, to the fact, that after an injury of the upper limb, the patient may be taken to the ambulance without aggravation to the injury, which is rarely the case after injury of the lower. Even in civil practice the results may be much influenced by the one class of patients being enabled to take exercise much earlier than the other.

Gazette des Hôpitaux, 1855, *No.* 149, *and* 1856, *No.* 1.

ON THE DROPSY OF PREGNANCY.

By M. BECQUEREL.

Four forms of dropsy are observed in pregnant women, which are far from being of the same importance.

1. *Mechanical Dropsies*, perhaps the most common, are due to the pressure exerted by the gravid uterus, their production being favoured by the lesser density of the blood in pregnant women, and the slight diminution of albumen that exists in its serum. These dropsies are confined to the lower extremities, are of no importance beyond their inconvenience, and disappear after delivery.

2. *Dropsies due to Changes in the Blood, but unaccompanied by Albuminuria.*—The change in the blood which induces these dropsies, consists in a diminution in the amount of the albumen of the serum, a diminution that is sometimes considerable, and for which we can assign no other cause than the fact of the pregnancy, and its influence on the various immediate principles of the blood. This description of dropsy, like the two next, tends to become general. It is of importance to distinguish it from the two others, and especially the 4th, for it does not predispose to eclampsia. It is by analysis of the blood alone that we can establish its existence. It disappears also after pregnancy, but far more slowly. It has been observed that women suffering from it remain feeble for a long period, their "getting up" being slow and difficult.

3. *Dropsies with Changes in the Blood and Albuminuria, but without Bright's Disease, properly so called.*—These dropsies are the consequence of the diminution of the albumen of the blood, produced by its deperdition through the kidney. Until lately it was supposed that such loss might take place without material lesion of the kidney; but from the investigations made by M. Robin and the author, it results that this albuminuria is due to a special modification taking place in the epithelial cells of the tubuli, a modification consisting in the infiltration of the cells and tubuli by numerous granules of a proteric nature. This infiltration is analogous to that which M. Robin had already found in choleraic albuminuria, and like it is susceptible of cure. The absolute diagnosis during life of this disease from Bright's affection is very difficult, and yet it is highly important, as the prognosis must be entirely based upon it. It is in women who are the subjects of these dropsies that we have to fear eclampsia, and the predisposition to puerperal peritonitis. Eclampsia is not, however, a necessary consequence; and when we find general dropsy, change in the blood, and albuminuria co-existing, we still cannot affirm that this terrible accident will follow. On the other hand, whenever we find eclampsia we are certain of finding, not always dropsy, but albuminous urine, and change in the blood. In respect to the termination of this form of dropsy it may be observed, that if eclampsia does not supervene, a cure is almost certain, while, in the case of its occurring the result is dependent upon that of the eclampsia.

4. *Dropsies due to Bright's Disease.*—It is very important to establish the diagnosis of this form. We may lay stress upon the somewhat larger quantity of albumen, the presence of fragments of the tubuli, of fibrinous filaments, and fatty globules. When eclampsia complicates this form it is invariably fatal; and even when eclampsia does not occur, the disease is not arrested after delivery. The dropsy continues to increase, the termination proving, after a certain period, fatal.—*Rev. Medico-Chirurgicale*, Tome XVIII. p. 302.

CASE OF POISONING BY MURIATIC ACID.

By Dr. DEUTSCH.

The author observes, that he relates this interesting case in consequence of there being few cases on record in which the poison has been taken accidentally, and not one of its having been taken intentionally. J. B., aged 30, a well-conditioned prostitute, while in a state of great mental suffering, took a phial from her pocket and quickly drank the contents. She uttered a scream and fell to the ground, where she lay twisting and rolling about. She had violent retching, expelling from time to time small quantities of a yellowish-green fluid; the abdomen became quickly distended; and she died in intense suffering in about two hours. The autopsy was performed three days afterwards, and the following were the chief points observed. The tongue and rest of the mouth were quite free from all appearance of burning or change of texture; the pharynx was of a dark brown colour, but its mucous membrane was even somewhat more firmly attached than ordinary. The walls of the œsophagus were normal in colour and free from all disorganization. The stomach projected much forwards, and seemed quite distended. It was of a cherry-red, and at places, especially towards the lesser curvature, there were irregular black spots of from two lines to half-an-inch in diameter, where the peritoneal coat felt harder and drier, and could not be easily torn or penetrated. It was found filled with a dark brown, almost blackish, homogeneous pulp, nearly without smell. The coats were found much thickened, and the mucous membrane was everywhere changed into a charred, shaggy, smeary mass. The muscular and serous coats were undestroyed, and were firmer than usual. The œsophagus, near the cardia, was blackened, the mucous membrane being mashy and smeary, and the muscular structure normal. The duodenum was normal, and the gall bladder was moderately filled with thin bile. The membranes of the brain were highly congested, and the sinuses distended. A thin, gelatinous deposit was found on the surface of the convolutions; but the brain contained little blood, the plexuses were normal, and there was no ventricular exudation. In the chest there was nothing abnormal observed, except a remarkable absence of blood in the heart, and considerable congestion of the lungs.

The case of accidental poisoning related by Orfila differs in various particulars from this, inasmuch as the mouth, etc., exhibited signs of the caustic operation, and the patient, living twenty-four hours, exhibited no signs of convulsion. In the present case, the poison acted far more rapidly: convulsions were developed, and no traces of the action of the acid could be discovered in the mouth. These were first seen in the pharynx, were wanting over a long portion of the œsophagus, and were shown in the same intensity in the stomach as Orfila had found them in his experiments upon dogs. This case, inasmuch as the poison was taken in a very concentrated form and in a considerable quantity, and was counteracted by no antidote, may be looked upon as furnishing a type of what occurs in this description of poisoning. We may remark the exemption of the mucous membrane of the tongue, etc., from its caustic effects, the predominance of nervous symptoms, so as almost to mask those of an inflammatory character; the undestroyed, and even unusually firm condition of the muscular coat of the stomach, and the slow advance of the putrefactive process in the body in general, and especially of the parts exposed to the action of the acid.

Berlin Zeitung, 1855. No. XLVIII.

GENERAL CORRESPONDENCE.

A NEW SPECIES OF ENTOZOON.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the *Medical Times and Gazette* of June 14, there is a very interesting communication by Dr. Ransom, of Nottingham, respecting the ova of some of the human entozoa and their microscopical appearances. In the course of his paper Dr. Ransom alludes to certain bodies which were observed by me in cholera evacuations during the year 1849, and which I then believed to be peculiar to the dejections of cholera. These bodies are considered by Dr. Ransom to be identical with the ova of the Ascaris lumbricoides, and I must say that his observations go very far to prove their identity. If so, he has demonstrated the real nature of what has been an enigma both to myself and to other more competent observers. There are, however, a few points of difference which I must notice. In the first place, the bodies figured

in Dr. Ransom's paper are of very nearly the same size as those described by myself, although the former are viewed with one-quarter and the latter with one-eighth inch magnifier. (For a correct representation of the cholera bodies I would refer to a plate in the *London Journal of Medicine* for 1849.) Again, the external tubercles or bullæ are more distinct in the bodies described by me; and, although I have observed some hundreds of them, I have never seen any destitute of projections, as are many of the ova figured by Dr. Ransom. Nevertheless, the points of resemblance are so well marked that I believe the cholera bodies to be in reality the ova of an entozoon of some kind, if not of the Ascaris lumbricoides. In 1849, Dr. Inman, of Liverpool, to whom I sent some of these bodies, first suggested that they were ova; and the same idea occurred to Robin, who, in his work on parasites, gives a representation of these bodies, copied from the *London Journal of Medicine*, and states that they resemble the ova of "certain entozoa of the liver."

I am, &c.

Clifton, June 23, 1856. J. G. Swayne.

ADMINISTRATION OF CHLOROFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—I consider that the time over which the inhalation extended in Mr. Witten's case of administration of chloroform explains the want of success, when we take into account the circumstance, that with the form of inhaler which he used only a part of the chloroform is taken into the lungs, and that a great portion is blown away by the warm breath during expiration. Mr. Witten would probably say that he has succeeded in other cases when using the same inhaler, apparently in the same manner. But the effect produced depends entirely on the proportion of chloroform vapour in the air breathed by the patient, and this varies, in using such an inhaler, with a number of circumstances which may easily pass unobserved; as, the accuracy with which the inhaler fits the face, the temperature of the sponge, and the amount of air which passes through it before being breathed. I have not found that the nervous temperament has rendered patients less susceptible to the influence of chloroform, and, as regards the deterioration of the blood, no amount of it which is consistent with life could affect the absorption of the vapour in the lungs, which is a strictly physical process.

With respect to my statement, that twelve minims of chloroform, when present in the blood, cause unconsciousness, I am able to adduce not only a calculation, but a direct experiment, in proof of it. The calculation is founded on some experiments which I published in the *Medical Gazette* for 1848, Vol. I. I found, that when animals were made to breathe air containing as much vapour of chloroform as would enable the blood to take up one fifty-sixth part, as much as it is capable of absorbing, it produced what I call the second degree of narcotism; a state in which the animals were incapable of perceiving what was occurring around them. Now, the serum of the blood, like other watery fluids, is only capable of dissolving about one part in 288 of its volume of chloroform; and if this number be multiplied by 56, and the quantity of serum in the body, (which, according to the experiment of Valentin, averages 410 fluid ounces,) be divided by the product, the result is 12 minims. The direct experiment is as follows:—If 12 minims of chloroform be put into a good-sized bladder, with 400 or 500 cubic inches of air, and an adult person breathes it backwards and forwards, as he would breathe laughing gas, he becomes quite unconscious in less than a minute; not sufficiently insensible for a surgical operation—for that would require about 18 minims—but he becomes altogether oblivious of everything about him. It is not necessary or desirable to exhaust the lungs before performing this experiment. The 12 minims of chloroform are undoubtedly diffused through the blood of the whole body. When animals are killed with chloroform I can detect it by chemical analysis as easily in the muscles as in the brain, and I found it readily in the leg of a hog, which was amputated while he was under the influence of the vapour. The quantity of chloroform in the brain at any one time is much less than a single minim, but this need not surprise us when we know in what small quantities the alkaloids produce their effects. Chloroform appears to produce its effects without undergoing any change itself; for, after a person has inhaled it, the vapour may be detected by chemical tests coming off unchanged in the breath; it can be detected in the bodies of animals killed by it, for a fortnight after death; and, lastly, by breathing it, mixed with oxygen, from a bladder, and making an arrangement to absorb the carbonic acid produced, the effect of a small quantity may be kept up for an indefinite period, and a few minims can be made to do the work of several drachms.

I am, &c.

18, Sackville-street, June. John Snow, M.D.

ON INJURIES TO TENDONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—One of your "Selections from Foreign Journals" in last week's number of the *Medical Times and Gazette*, is from a Berlin Medical periodical, and contains an extract from a paper by Dr. Sebregondi, on "Dislocation of the Tendons." The author alludes to the fact, that little notice is taken of it in the manuals, and the frequency of its being mistaken for dislocation, partial or complete, etc. He further adds, that it is attended at times with rupture of the sheath of the affected tendon. Concurring with Dr. Sebregondi in his statement, that little notice is taken of these accidents in the ordinary Surgical class-books, I am induced to ask you to insert the following statement relative to cases of injury of the sartorius tendon, and that of the biceps, which came under my observation:—

The first was that of a gentleman, aged 48, who had completely recovered from the injury when he drew my attention to a small tumour that had resulted from the accident, which he had been told by a very eminent Surgeon was a rupture of the sheath of the tendon of one of the muscles of the thigh: it had occurred at the moment of making a sudden effort, and had never given him any annoyance. Since his recovery, which was a period of several years, the tumour was in the situation of the sheath of the sartorius tendon, and about the size of a small kidney-bean.

The other case of injury to the sartorius tendon occurred to a barrister, aged about 27. In this case, also, the accident was the result of a sudden action of the muscle, when turning round in the street. So severe was the shock, that the sufferer instantly fell down; he was, however, able to walk home, a distance of about a quarter of a mile, though feeling much pain and stiffness. On moving the limb, at the moment of the accident, he heard a "loud snap," which he referred to the point of injury.

Eighteen hours after the accident I found swelling over the inner condyle in the line of the sartorius tendon, and at the point of its insertion into the tibia; there was also swelling in the instep and foot. Pain was felt on bending the knee, and in walking it extends down the limb towards the toes. I applied a strong calico bandage from the toes to some three inches above the knee, the limb being thereby kept extended. A piece of folded lint moistened in compound lead lotion was kept applied to the bandage over the injured part.

January 28.—The patient slept much better last night than on the previous one. The swelling and pain are diminished, owing to irritation from pressure of the bandage. I reapply it; to continue the lotion.

29th.—Less pain in limb, the slightest rotation of the knee accompanied by pain. Subsequent to this date slight abrasion of the heel was caused by the bandage; some lint spread with cold cream, and a pasteboard splint, remedied this. A more stimulating lotion was used, and the state of the digestive organs attended to.

February 10.—A broad strap from the shoulders was placed under the sole of the affected limb so as to support the weight of the leg and foot; and thus, without at all bending or rotating the limb, the patient was able to move about his room with the aid of a strong walking-stick.

15th.—Some effusion about the injured tendon. Slight fulness and pain on bending the knee.

16th.—Was able to walk out for a short time.

March 2.—Complained of painful "twitchings" in the affected part to-day.

5th.—Continues improving. A callus seems to have united some of the injured tendinous fibres, and is perceptible on examining the part.

22nd.—The bandage was left off.

24th.—Owing to a return of pain and a sensation of crackling

at the injured part on attempting to kneel, I re-applied the bandage.

April 1.—Discontinue the bandage. A slight fulness remains in the affected part. Has almost perfectly recovered the use of his knee.

5th.—No return of pain, but still feels cautious in using the limb.

May 29th.—Recovery perfect.

Another instance of injury to a tendon came under my care some years ago. It occurred to a gentleman aged 30, who, in making a violent exertion by which the whole weight of his body was thrown upon one arm, felt a sudden sharp pain in the right arm, apparently in the rounded tendon of insertion of the biceps cubiti. Except rest of the arm, and abstaining from any exertion for a considerable time, no treatment was required. In conclusion, I may observe that in all of these cases the persons who sustained the injuries had not, from delicate health or other cause, been taking their accustomed active exercise for some time previously.

I am, &c. Chas. F. Moore.

16, Old Burlington-street, June 24, 1856.

SANTONINE.

[To the Editor of the Medical Times and Gazette.]

Sir,—I was glad to see, in a recent number of your Journal, that Mr. Perry, of Droxford, had brought santonine before the notice of the Profession as an excellent anthelmintic. In Italy it has been extensively employed for some years; and the remedy is so popular that the natives rarely seek for Medical advice when they or their children suffer from the more common kinds of intestinal worms.

The cases treated by Mr. Perry were the *Ascaris lumbricöides;* mine have been, for the most part, *Ascaris vermicularis*, and in no instance have I failed, with santonine, to effect a speedy cure, even in obstinate cases which had resisted the most approved remedies, injections, etc. Dog-fanciers also will find it a most convenient and effectual means of relieving the canine race of a troublesome malady.

In this country (Italy) the powdered crystals, mixed with white sugar, are given in the morning fasting, in one, two, or three grain doses, for children under 5 years of age, and from five to eight grains for adults. A dose of castor-oil is generally given two or three hours afterwards. Lozenges composed of chocolate and santonine, in different proportions, are very commonly prepared by the druggists. I have been in the habit of combining the santonine with powdered scammony, and have had reason to be satisfied with the results. It may be as well to state, that this remedy occasionally causes the patient to see all objects of a green or greenish-yellow colour for one hour or two after its administration. Beyond this curious effect I am not aware of any other unpleasant symptoms having followed the ordinary dose of it.

Santonine is said to be feebly acid, and to combine with the oxides of iron, tin, copper, etc. Some of these preparations may prove valuable in particular cases. I am, &c.

Naples, June 19, 1856. Thomas Bishop, M.D.

HEALTH OF THE ARMY IN THE CRIMEA.

The Inspector-General of Hospitals, serving with the army in the East, in forwarding his weekly Return of Sick for the period ending 10th May, states, That the health of the army continues wonderfully good, and the mortality remarkably low. In the Artillery, 3rd, and Light Division, there has been an increase of febrile complaints during the week, but the cases that have been admitted have been mild, and amenable to Medical treatment; but three cases of typhus fever admitted into the General Hospital at Balaklava from among the dirty camp followers at Kadikoi proved fatal.

In the Land Transport Corps febrile complaints have greatly decreased; but the number in Hospital has been kept up for the last fortnight by the admission of itch cases.

Only 11 deaths have taken place in the whole army, and of these, 3 occurred in the Land Transport Corps, and 3 from fever in the Swiss Legion at Smyrna, leaving 5 for the troops of the line, and of these 5, 1 was from violence, 1 from fever, 1 from delirium tremens, and 2 from disease of the lungs, in one of which delirium tremens supervened in the course of treatment.

Ophthalmia of a mild character continues prevalent in certain regiments, and there is an increase of admissions into Hospital from this disease this week; but this may arise from the sanitary measures that have been adopted, as the men are inspected daily by a Medical Officer, and any one that has the least appearance of ocular disease is immediately placed under Medical treatment.

From the present appearance of the cases there is not much to apprehend from the complaint.

The admissions to strength this week in the Crimea have been— 1·93 per cent.

Deaths to strength . . . 0·01 ,, ,,

Sick to well . . . . . 3·59 ,, ,,

Taking the whole force and the sick in all the Hospitals, both general and regimental, the proportions are—

Sick to well . . . . . 4·81 per cent.

Admissions to strength . . 2·29 ,, ,,

Deaths to strength . . . 0·01 ,, ,,

The Inspector-General of Hospitals, serving with the Army in the Crimea, in forwarding his weekly return of sick for the period ending 17th May, states that:—Although the health of the army appears very satisfactory, still there has been an increase of mortality during the week, and two of the deaths which occurred were cases of typhoid fever, complicated with pneumonia, which ran their course rapidly.

These cases occurred in the 31st Regiment, were admitted from the same hut, and slept opposite to each other. The hut is situated close to the former cemetery, on the hill, where the huts of the 31st Regiment stand; and whether the locality had anything to do with the disease, or not, it is difficult to say, but, at all events, it was thought prudent to move the men out of it into an adjoining hut, and locate them in the huts which had been vacated by the 56th Regiment.

The Land Transport Corps is improving in health, and no death took place in the Hospitals at the head-quarters of the corps during the week; but three occurred in the battalions attached to divisions.

There has been an increase of ophthalmia this week; but the cases are slight, and the number of admissions has been augmented by the daily Medical inspections which take place to detect the first symptoms of this troublesome complaint, and at which any one whose eyes show the slightest trace of disease is sent at once for treatment.

Of the 14 deaths which took place, 3 were from fever, 3 from disease of the lungs, 3 from head affections, 2 of them being the direct effects of drunkenness; 1 from abscess of the brain, following an injury; 3 from chronic bowel affection; 1 from disease of the bladder, etc.

The ratio of admissions to strength in the Crimea has been— 1·89 per cent.

Deaths to strength . . . 0·02 per cent.

Sick to well . . . . . 3·57 per cent.

Taking the whole command, and all the sick, both in General and Regimental Hospitals, the ratios have been respectively:—

2·17 per cent.
0·03 ,,
4·39 ,,

EXAMINATION PAPERS IN MEDICINE AT THE UNIVERSITY OF DURHAM.

We have been requested to publish the following series of questions proposed to the Candidates for the Licence in Medicine of the University of Durham. The examinations were held partly at Durham and partly at Newcastle.

UNIVERSITY OF DURHAM.

June 9, 1856.—From 9 o'clock to 12, a.m.

Chemistry, Botany, Materia Medica, and Medical Jurisprudence.

1. What is meant by the "equivalent" of a chemical substance?

2. Into what three great classes are acids divided, and what important purposes does this division subserve in the case of phosphoric acid?

3. Describe the oxides of iron, and their use in the animal economy.

4. Describe the symptoms of poisoning by arsenic, the

process of detecting arsenic in the liver, and the tests by which its presence is recognized.

5. What is the primordial utricle of the vegetable cell, and how does it differ chemically from cellulose?

6. Mention the names of the principal groups into which Linnæus divided plants, and give the names and characters of the principal divisions of Decandolle.

7. What are the medicinal properties, the doses, and the principal uses of the potassio-tartrate of antimony?

8. What are the medicinal properties and characteristic effects of opium?

June 9, 1856.—From 2 o'clock till 5 p.m.

Anatomy and Physiology.

1. Describe the minute structures of the areolar, the osseous, and the nervous tissues.

2. Describe the hip joint, including an enumeration in order of the muscles which surround it. Mention the varieties of movement at that joint, and point out the chief structural and functional differences between the hip joint and the shoulder joint.

3. Describe the portal circulation, and the anatomy and uses of the liver.

4. What is a gland? Give a classification of glands.

5. Describe a pulmonary air-cell, and state clearly the changes undergone, during respiration, by the air and by the blood.

What are the peculiarities of the functions of the lungs, the skin, and the kidneys respectively as purifiers of the blood?

6. What is an excito-motor or reflex act, and what are the conditions necessary for its performance?

7. How are the nervous centres developed? Enumerate the chief differences between the brains of the four classes of vertebrata.

June 10, 1856.—From 9 o'clock till 12 a.m.

Principles and Practice of Midwifery. Principles and Practice of Surgery.

1. State the signs of pregnancy, and the value of each respectively.

2. What are the constituent parts of a Graafian vesicle, and of its contained ovum.

3. Give the diagnosis of placental presentation, its varieties and its treatment.

4. State the injuries which may happen to the head, scalp, skull, dura mater, and brain. Enumerate the causes of compression of the brain, and state the difference in symptoms between concussion and compression of the brain.

5. Enumerate the causes of retention of urine, and describe the treatment appropriate to each case.

6. Mention the injuries to which the shoulder-joint is liable. State briefly their symptoms, pointing out clearly the diagnostic signs between fractures about the head of the bone and dislocations.

June 10, 1856.—From 2 o'clock to 5 p.m.

Principles and Practice of Physic.

1. Under what circumstances does pericarditis frequently arise? What are the symptoms and the consequences of pericarditis? How do you distinguish pericarditis from acute pleurisy of the left side?

2. State your plan of treatment in sthenic pneumonia occurring in a healthy adult.

3. What are the supposed causes of diabetes? Whence is the sugar derived that is found in the urine in this disease? What are the best tests for this sugar, and how is life extinguished in diabetes?

4. What are the symptoms of ulceration of the stomach? Can it be distinguished from cancer of that organ? What are the forms of ulceration, and in what parts of the stomach does it chiefly occur?

5. Describe an ordinary attack of scarlatina, which internal organs are most liable to be attacked, and what are the most common sequelæ of scarlatina?

6. Give instances in which the microscope is valuable as a means of diagnosis.

7. Can you distinguish between a chlorotic and an organic endocardial murmur?

8. How do you treat acute gout? Can lithic acid be detected in the blood?

9. Write prescriptions in full, for a mineral and for a vegetable tonic mixture, and for a mineral diuretic draught. Give in a note the reasons for your combinations.

PRACTICAL EXAMINATION AT NEWCASTLE.

June 11.—In the Dissecting-Room.

Surgery and Anatomy.

1. Dissection of inguinal hernia; diagnosis of different kinds of hernia. The operation.

2. Removal of calvarium, and dissection of part of brain.

3. Dissection of posterior inferior triangle of neck; the Surgery of that region; subclavian artery and vein, brachial plexus, phrenic nerve, etc. Guide to artery in third part of its course.

4. Introduction of the catheter, when required; the impediments to it.

5. Amputation of the leg below the knee; the place of election; the modes of amputation; the arteries, and their place on the stump. Primary and secondary hæmorrhage; their treatment.

6. Amputation of the thigh; place for it; modes of amputation, and of arresting hæmorrhage; the arteries; dressing the stump.

7. Ligature of the brachial artery; guide to it; mode of ligature.

8. Chopart's, Hey's, and Syme's amputations at the foot.

9. Anatomy of lachrymal apparatus, puncture of lachrymal sac, and catheterism of nasal duct; guide to the puncture of the sac.

10. The operation of laryngotomy; when performed; in which diseases required. The cartilages of the larynx.

11. Ligature of the common carotid; what nerves accompany the artery; their relative position to it.

12. The principal branches of the external carotid artery; enumerate them; what nerves supply the tongue, and what are their functions? Origin and insertion of musculus digastricus. How is food prevented from entering the glottis during deglutition?

At the Hospital.

Each candidate was required to examine a Surgical and a Medical case, and give his diagnosis and treatment.

The *Surgical* cases were:—

1. Extravasation of urine.
2. Osseous abscess.
3. Amputation at ankle-joint, and fracture of thigh.

The *Medical* cases:

1. Disease of heart, mitral regurgitation.
2. Pneumonia, with albuminuria.
3. Phthisis pulmonalis.

In the Laboratory of the College.

The following clear solutions were put into the hands of each of the candidates, with a collection of tests, etc.; they were required to analyze them, and state what each contained. The solutions were marked 1, 2, 3, 4, 5:—

1. Albuminous urine.
2. Diabetic urine.
3. Solution of tartar emetic.
4. Ditto of acetate of lead.
5. Ditto of a salt of mercury.

VIVA VOCE EXAMINATION.

Durham, June 12.

J. Dickinson.

Medicine.—Pericarditis—its connexion with rheumatism; its symptoms, friction sound, when does it appear, how long may it last; treatment, depletion, calomel and opium, etc. Fever, hæmorrhages in, treatment of them.

Surgery.—Femoral hernia—anatomy of the parts concerned; treatment; operation; seat of stricture; direction of incision; treatment of gangrenous intestine in strangulated hernia. Accidents that may happen to brachial artery during venesection; varicose aneurism and aneurismal varix; their symptoms, diagnosis, and treatment. Stab in calf of leg, followed by considerable hæmorrhage; how to find wounded posterior tibial artery. Are both ends of vessel to be tied? The symptoms of compression of the brain from extravasation of blood.

Chemistry.—What is iodine, where is it found, how do you extract it, what do you make of the solution, what remains in

the mother liquor, how do you obtain iodine from this solution, in what form does the iodine appear, and how do you obtain it? What are its properties? What is the characteristic reaction of iodine?

T. T. Pyle.

Medicine.—Intermittent fever, its varieties. Describe an attack of quotidian ague; treatment. Write prescription for an emetic draught; quinine. Which organs suffer most in ague?

Surgery.—Oblique and direct inguinal hernia; diagnosis; diseases of cord and testis that may be associated with hernia. Diagnosis between hæmatocele and hydrocele: treatment of former. Inflammatory œdema of scrotum. Symptoms of stab in the chest wounding lung; treatment of wounded lung; venæsection; Can patient lie on the wounded side? What is emphysema of cellular tissue? In what position is the head to be kept in cut-throat? Treatment of iritis.

Chemistry.—How do you obtain chlorine? What is the explanation of the decomposition? What are the properties of chlorine? Has the aqueous solution the properties of the gas? How do you recognise the presence of chlorine? What action has heat on the black oxide of manganese? Does muriatic acid undergo any change in its action on this protoxide of manganese?

W. Young.

Medicine.—Phthisis pulmonalis with vomica; treatment; use of cod-liver oil. Write a prescription for a mineral acid mixture. What changes have been observed in the stethoscopic examination of lungs that have been benefited by the use of cod-liver oil; and in the lungs themselves on post-mortem examination? What diseases most commonly complicate phthisis?—Counter-irritation. What may be the cause of dulness on percussion over the lower part of one side of the chest, in a person out of health, but without cough or other particular symptom?

Surgery.—To what dislocations is the hip-joint liable? The diagnosis between fracture of the neck of the femur within the capsule, and dislocation on the dorsum ilii. Symptoms of dislocation in the thyroid foramen. Treatment of fractured patella. Conjunctivitis; its treatment. Which form is most dangerous? Treatment of gonorrhœal ophthalmia. Retention of urine from stricture; its treatment. Where would you puncture the bladder? Why through the rectum? In disease of the spinal cord, in what state do we often find the urine?

Chemistry.—What is tartar emetic? In what form does the antimony exist in that salt? How do the strong mineral acids act upon tartar emetic? What tests do you apply to recognise the presence of antimony? How do you distinguish antimony from arsenic?

MEDICAL NEWS.

Royal College of Physicians.—At the usual Quarterly Meeting of the Comitia Majora, held on Wednesday, the 25th ult., the following gentlemen, having undergone the necessary examinations, were admitted:—Dr. Ward, Finsbury-circus, a Member of the College; and Dr. Goddard, York-place, Brighton; Dr. James Kees, Madras; Dr. Charles Millar, Leamington; and Dr. Merie, Manchester, as Extra-Licentiates. At the same comitia Dr. Alderson, Dr. Guy, Dr. Black, and Dr. Pitman, were elected censors for the ensuing year.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, June 26, 1856:—

Blasson, William, Billingborough, Lincolnshire.
Crofts, William Carrick, Lincolnshire.
Fryer, Thomas Webb, Bristol.
Harris, Henry, Springfield, Bedfordshire.
Hewitt, John, jun., Well-street, Wellclose-square.
Johnson, William Freeland, Colchester, Essex.
Onions, William, Briercley-hill, Stafford.
Pickop, Thomas, Lancashire.
Scott, Francis, Wickham-market, Suffolk.

DEATHS.

Bontflower.—April 19, at Hingolee in the Deccan, William Henry Bontflower, Assistant-Surgeon H.E.I.C., attached to the 2nd Infantry, Hyderabad Contingent.

Broxholm.—June 27, at Darlaston Hall, Meriden, near Coventry, Robert George Broxholm, Esq., Surgeon, of Sunbury, Middlesex, in his 42nd year.

M'Guffog.—June 15, at Constantinople, aged 68, Samuel M'Guffog, Esq., M.D., during a period of upwards of 40 years Physician to the British Embassy there.

Wing.—June 27, at Bury St. Edmunds, Suffolk, aged 60, Henry Wing, Esq., Surgeon. L.S.A. 1822.

City of London Hospital for Diseases of the Chest.—The Quarterly Meeting of the Board of Managers of this Institution was held on Wednesday week. It appeared from the report that not less than 1600 new cases had been admitted to the benefits of the Charity as out-patients during the last quarter, and that there was an average attendance of 777 out-patients each week. The number of in-patients then in the Hospital was stated to be 28. Dr. Edwards had been elected Assistant-Physician in the room of Dr. Andrew Clark, resigned. A further sum of £100 was announced from the Worshipful Company of Mercers.

Royal Orthopædic Hospital.—On Thursday, the 26th ult., the Royal Orthopædic Hospital was opened by Prince Albert, in the presence of a great number of ladies and gentlemen. The Hospital is situated on the north side of Hanover-square, and is large and well-built, providing accommodation for double the present number of in-patients. Prince Albert arrived at three o'clock, and was conducted through the different wards of the Hospital. He then proceeded to the principal apartment in the institution, whereupon Lord Abinger read an address to the Prince, which gave a history of the institution from its establishment in Bloomsbury-square to the present time. The number of patients, he said, admitted since the opening of the Hospital, was 19,000. These included persons of all ages,—adults, youths, fatherless and motherless children, and infants, by timely treatment prevented from becoming cripples. The Prince replied in the following terms:—"I have listened with much interest and gratification to the account which has just been read of the satisfactory progress made by this excellent institution, and of the benefits which it has already been the means of conferring since its first establishment. It has given me the greatest pleasure to attend on the present occasion, and to assist with you at the inauguration of that new era to which you look as affording the promise of yet more rapid advancement, and of benefits multiplied and still more widely diffused; nor can I doubt for a moment that the continuance on your part of the same exertions which have led to the present success of this institution will be followed by the gratifying results that you anticipate, and will lead to the sure realization of your most sanguine anticipations." The proceedings then terminated. On Sunday morning His Grace the Archbishop of Canterbury advocated the cause of this excellent charity at St. Peter's Church, Vere-street, Marylebone. The archbishop having dilated upon the circumstances of the Hospital, concluded by a pathetic appeal to the sympathies of the congregation, which resulted in contributions amounting to £62 4s. 10d.

Mr. Griffin's Poor Law Movement.—Kensington.—At a meeting of the Medical officers of Kensington, held on June 27, the following resolutions were carried unanimously: "That this meeting, in responding to the appeal of Mr. Griffin, views with satisfaction the movement set on foot by him for the improvement of the position of the Poor Law Medical officers. That the Medical officers of this parish, without pledging themselves to details, concur in Mr. Griffin's plan, and hereby tender their best thanks to that gentleman for the zeal and ability which he has displayed in this undertaking. That they forward a subscription of one guinea towards the expenses, with the assurance of a further subscription, if necessary."—Francis Godrich, Chairman, West Brompton, Kensington.

City Commission of Sewers.—Dr. Letheby's Quarterly Medical Report contains the following information:—The mortality table for the quarter indicates an unusually small proportion of deaths. The total number for the three months, 747. Of these, 30 were among children under five

years of age; 80 between the ages of 40 and 50; 72 between 50 and 60; and 75 among old people of 70 and upwards. The chief causes of death were as follows:—violence, privation, and poison, 30; fever, 37; scarlet fever, 32; small pox, 9; diarrhœa, bronchitis, and pneumonia of children, 40; measles, whooping cough, and croup, 51; hydrocephalus, teething, and convulsions of infancy, 88; consumption, 142; and diseases chiefly of chronic character, 314. On comparing this mortality with that of the corresponding quarters of previous years, it will be seen that the sanitary state of the city as thus indicated is very satisfactory. In the spring quarter of 1855, the number of deaths was 785; in that of 1854, it was 798; and the average of the last seven years is 756. As usual, the largest relative proportion of deaths has been in the district of the West London Union, where the several circumstances which tend to increase the virulence of disease are most frequently present. The actual proportions of the 747 deaths in the three districts are as follows:—In the district of the East London Union there were 279 deaths; in that of the West London there were 218; and in that of the City of London, 250. This is at the rate of 62.5 per 10,000 of the inhabitants in the first district; of 76.2 in the second, and of 44 in the third. The average of all being 57.4.

The Gresham Charities Commission.—On Tuesday morning Mr. F. O. Martin, the Inspector appointed by the Charity Commissioners for England and Wales to institute an inquiry into the charities of the late Sir Thomas Gresham, resumed the investigation at the hall of the Company of Mercers. It having been arranged that the Gresham Professors should be invited to give evidence, Henry Herbert Southey, M.D., Professor of Physic, stated that it was his duty to read lectures at the Gresham College, in Latin, and then in English, every day in term. He had very frequently found there was no audience at the Latin lectures. On those occasions the lectures were not delivered. There had been as many as twelve at the Latin lectures, but first there were only three or four. The lectures were given to promote a perfect course of Medical education. Professor Taylor's Medical lectures had drawn 700 people. Could not suggest any way by which the Medical lectures could be made more popular, neither could he speak as to the question of fees. William Palmer, Esq., M.A., of Oxford, and Gresham Professor of Law, said he was appointed in 1836. He lectured in Latin when there was an audience, but very few people ever attended the lectures in Latin.

Powers of Medical Officers.—On Monday, Mr. Bianchi, Medical Officer to St. Saviour's Board of Works, applied to the magistrate under the following circumstances:—He had found in a close court in his district a whole family, except the father, in a confirmed state of typhus fever. They positively refused either to be removed to the workhouse or to the Fever Hospital; and Mr. Bianchi was anxious to know what powers he had in the matter under the new Act. Mr. A'Beckett said there was nothing in the Act of Parliament warranting him to interfere; and the liberty of the subject was not to be trampled upon by forcing people away from their own houses.

An Irish Government Bill extends the provisions of the existing Act on the Queen's Colleges, by empowering the president and council of each of the Queen's Colleges to appoint three medical officers, who, with the ordinary medical officer of the workhouse hospital of the town, may visit and prescribe for the patients in the wards of that hospital, whereto the medical students have access.

Death from Quackery.—An inquest was held on Friday, on the body of Bridget Greer, aged 24, the wife of a sawyer. Greer said that he had been married eight months, and that during the whole of that time the deceased had suffered severely from pains in her stomach. On Monday, she was taken ill with vomiting, and this continued till Wednesday afternoon, when she died. Catherine Hethersell came into the house, and said she could cure Mrs. Greer. She sent for some tormentil root, which she said was for witness's (Ward) husband, and a halfpenny-worth of "black ash." Mary Bradley said she was in the house when the ash was brought in, and saw Hethersell take a piece, the size of which she said was about "up to the first joint of my finger," which she mixed in warm water and boiled. When it became cool, about a cupful was given to the deceased, who took it, and was seized with vomiting two or three minutes afterwards. The deceased said the ash had given her relief from the pain, and she would not let her friends send for a doctor, as, she said, she had been as ill before and got over it. It was about one-third of the halfpenny-worth of black ash that was administered. Mr. T. Wilson Dyson, surgeon, said he had made a post-mortem examination of the body of the deceased. He found that death had resulted from peritonitis, produced by a perforation in the stomach about the size of a sixpence. Black ash was a powerful solvent of animal matter, and the quantity described by Bradley as having been administered was quite enough to produce death by perforation. Black ash was generally known by Medical men as caustic potass, and was rarely given internally by regular practitioners. It was used externally for destroying flesh. He found nothing else in the body which would account for death. Perforation would take place within a few hours after the taking of the medicine, and death would ensue within 48 hours after the perforation. Catherine Hethersell (having been cautioned) said she had been in the habit of taking black ash tea since she was 18 years of age, and she was now 50. It had always done her good, and she had given it to others whom it had cured. She did not administer so much to Mrs. Greer as the witness Bradley had stated. The jury returned a verdict of *death from an overdose of potass administered as medicine by misfortune!*

The last mail from the East Indies brings the sad intelligence of a fresh epidemic of cholera at the Mauritius. On the 21st of April, when the mail left, there had been above 2000 deaths. It is the third epidemic of cholera in the island. The first one took place in 1819, when 20,000 persons died; the second took place in 1854, and then 50,000 died, of whom 6000 were in Port Louis, out of 50,000 inhabitants. The Mauritians accuse the local government of not having been stringent enough as regards the quarantine laws. They attribute the three epidemics to communications between some inhabitants and ships on board of which cholera existed.

Old Age.—A woman died in the Workhouse, Whitechapel, aged 95. On the 20th June, a baker died in the Workhouse Mile-end New-town at the age of 100 years.

Mortality Notabilia.—In the week that ended on Saturday the total number of deaths registered in London was 1118. In the corresponding weeks of the ten years 1846-55 the average number was 1067, which, if raised in proportion to increase of population, for comparison with the deaths of last week, will become 1174. The number now returned is less than the estimated amount by 56. The present return exhibits an increase on that of the previous week, when the number of deaths was less than a thousand, in consequence of eases, on which inquests were held, being entered in the registers in considerably more than the due weekly proportion, which usually happens at the end of a quarter. The number of deaths referred to the zymotic class of diseases is not affected by this circumstance, and that was, last week, 228; the average of ten weeks, corrected for population, being 255.

Births.—Last week the births of 884 boys and 853 girls, 1737 children, were registered. Average 1529.

Meteorology.—At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·999 in. The mean daily reading was above 30 in. on four days. The mean temperature of the week was 63·4°, which is 2·5° above the average of the same week in 38 years (as determined by Mr. Glaisher). The temperature of the water of the Thames varied from 60·5° to 68·9°; the mean of the week was 63·7°. The wind was variable; on Saturday it blew from the north-east. There was no rain in the week, except some on Sunday the 22nd, not measured by the gauge.

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	6	4	4	..	6
North	490,396	..	7	8	10	4	8
Central ..	393,256	3	9	7	7	3	8
East.....	485,522	5	2	8	7	6	18
South	616,635	1	17	3	8	3	8
Total..	2,362,236	9	41	30	36	16	48

DEATHS IN PUBLIC INSTITUTIONS for the Week ending June 28 :—

	Males.	Females.	Total.
Workhouses	60	64	124
Prisons	4	1	5
Military and Naval Asylums ..	7	..	7
General Hospitals	44	25	69
Hospitals for Special Diseases ..	6	3	9
Lying-in Hospitals	1	2	3
Military and Naval Hospitals ..	7	..	7
Hospitals for Foreigners, etc. ..	..	..	..
Lunatic Asylums	4	1	5
Total	133	96	229

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, June* 28, 1856.

Causes of Death.	In the Week ending Saturday, June 28, 1856. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 63°4						60°0
All Causes	1118	578	163	161	168	37	1066·8
Specified Causes	1104	577	162	161	167	37	1057·7
Diseases:—							
1. Zymotic Class	228	180	21	15	11	1	232·4
2. Dropsy, Cancer, and others of uncertain seat	43	8	6	14	13	2	46·3
3. Tubercular Class	198	94	71	28	5	..	190·9
4. Of Brain, Nerves, etc. ..	139	67	14	23	33	2	126·8
5. Of Heart, etc.	41	5	8	10	18	..	41·1
6. Of Respiratory Organs ..	130	64	12	21	30	3	109·4
7. Of Digestive Organs ..	63	28	5	22	7	1	63·8
8. Of Kidneys, etc.	17	..	2	7	7	1	10·6
9. Of Uterus; viz. — Puerperal Disease, etc. ..	7	..	4	2	1	..	10·9
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	6	1	2	3	..	..	8·6
11. Of Skin, etc.	2	..	1	1	..	..	2·5
12. Malformations	4	4	..	..	..	..	2·6
13. Debility from Premature Birth, etc.	36	36	..	..	..	..	25·4
14. Atrophy	39	33	..	1	5	..	27·1
15. Age	43	..	..	..	19	24	33·9
16. Sudden	24	13	3	3	5	..	31·4
17. Violence, Privation, o-c...	84	44	13	11	13	3	94·0
Causes not specified.. ..	14	1	1	..	1	..	9·1

BOOKS RECEIVED.

Journal für Kinderkrankheiten. Heft 3 und 4. Erlangen. 1856.

Lectures in Reply to the Croonian Lectures for 1854, of Charles West, of London. By Henry Miller, M.D., Professor of Obstetric Medicine in the University of Louisville. 1855.

Charleston Medical Journal and Review. May. 1856.

The Half-yearly Abstract of the Medical Sciences. January to June, 1856. London: Churchill.

The British and Foreign Medico-Chirurgical Review. No. XXXV. July. 1856. London: Churchill.

Braithwaite's Retrospect of Medicine. January to June, 1856. London: Simpkin and Co.

The Pharmaceutical Journal. July. 1856.

On the Efficacy of Small Doses of Morphia (as opposed to the Use of Expectorants) in the Treatment of Hooping Cough, Chronic Bronchitis, and Phthisis. By Dr. Edward Smith.

The Journal of Psychological Medicine. Edited by Dr. Forbes Winslow. July. 1856. London: Churchill.

TO CORRESPONDENTS.

Dr. Beale will perceive that his request has been complied with.

Dr. Noble's letter has been received, and his suggestions shall have due attention.

H. T.—In order to bring the party within the operation of the Act of 1815, it must be shown that he prescribes and dispenses medicines in Medical cases, and receives payment for so doing.

An M.R.C.S.—1. We cannot give any positive opinion as to its passing this Session. 2. An M.R.C.S. of London would, no doubt, be obliged to pass an examination in Medicine, Chemistry, and Pharmacy. 3. We cannot give any decided answer to the question, but we presume that he would.

A Medical Pupil.—The best and most effectual method of inducing cold is by a mixture of ice and salt; but independently of the use of ice itself, freezing mixtures may be made by the solution, in water, of some salts, such as Hydrochlorate of Ammonia, Nitrate of Potash, Nitrate of Ammouia, Carbonate of Soda, Phosphate of Soda, etc., mixed together in certain proportions, which are described in most works on Chemistry.

M.D.—The terms would of course vary with the circumstances, but an assistant living out of doors would obtain, perhaps, from £80 to £100 per annum.

Dr. Oldham's Paper on Placenta Prævia is in type, and will be published next week.

A Voice from the Mining Districts—although in type, will be withheld for the present.

Sanitas.—The Fleet ditch does still exist, but it is more hidden from the public gaze, though not much less lethal in its effects. It is strange, that in the 19th century this should be so, when we find in the Parliamentary Records of 1290 the following in respect to this same part:—"Prior et fratres de Carmelo in London, qui ita gravantur de fetore. . . . . propinqui, quod dunare non possunt, nec divinum officium ministrare, et occasione multi dictorum fratrum mortui sunt. Petunt quod rex velit precipere dictum fetorem removere. Et fratres predicatores petunt illud: et episcopus Sarum, et omnes vicini propinqui, petunt illud idem."—Rot. Parl. Vol. i., p. 61.

L.S.A., etc.—We will endeavour to reply to the numerous questions of our Correspondent at an early period.

Trouble.—We cannot prescribe in this Journal, but should recommend change of air and scene. The complaint is curable.

We have received a copy of the Petition from the University of Dublin against the amended Medical Reform Bill.

COMMUNICATIONS have been received from—

Dr. Andrew Smith; Mr. Toynbee; F.R.C.S.E.; Mr. Alfred S. Wood; Dr. Snow; B.; A Medical Pupil; Dr. Beale; Mr. Francis Godrich; M.D.; Dr. Elliotson; Dr. Dennis Embleton; A Voice from the Mining Districts; Mr. H. Turner; Dr. Bishop, Naples; A M.R.C.S.; Dr. Arthur Ross; The Royal College of Physicians; Dr. Mouat, C.B.; The University of Dublin; Dr. C. B. Radcliffe; The Epidemiological Society; "Trouble" L.S.A.; An Advocate of Self-Government.

APPOINTMENTS FOR THE WEEK.

July 5. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

7. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

Epidemiological Society, 8 p.m.: Dr. B. W. Richardson "On the Principles of the Inductive Philosophy as applied to the Study of Epidemics."

8. *Tuesday.*

Operations at Guy's, 1 p.m.

9. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

10. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.

11. *Friday.*

Operations at the London, 1½ p.m.; Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

Brompton Hospital, 4 p.m.: Dr. Edward Smith, "Certain Views on the Nature and Treatment of Phthisis."

ORIGINAL LECTURES.

LECTURES

ON

GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.,

Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

LECTURE VI.

We must now proceed to the consideration of another great division of the animal kingdom— the *Annulosa*—a sub-kingdom which, in numerical strength, and in the extreme diversity of the modifications of a common plan which it presents, surpasses any other. I have already explained (Lect. I.) the general nature of the common plan of the *Annulosa*, but it must not be supposed that the structural features characteristic of that common plan are discoverable in all annulose animals; on the contrary, we shall have occasion to remark here, as in the other sub-kingdoms, that certain outlying classes differ so widely from the rest, as to be with difficulty included under any common definition with them. The difference is produced, however, not by the intrusion of structural peculiarities belonging to other sub-kingdoms,—these aberrant forms being in no respect transitional,—but by the non-development of some one or other of the system of parts characteristic of the common plan in their own group.

Thus, although the *Annulosa* typically possess a body divided into a number of segments provided with lateral appendages—a nervous centre composed of a chain of ganglia, perforated by the anterior extremity of the alimentary canal, and turned downwards—and an intestine, which is well developed, and does not communicate directly with the perivisceral cavity—yet we shall find many animals, undoubtedly annulose, and presenting not the slightest affinity with any other sub-kingdom, in which the body is not divided into a number of segments; in which there are no appendages; in which the nervous system is not composed of a chain of ganglia, and is not perforated by the alimentary canal; in which in certain cases, even, no alimentary canal is developed at all. Is this, then, any evidence that our classification is based upon a reference to Type and not on Definition? I think not; it appears to me merely to show that our definitions are at present only approximatively correct.

The *Annulosa* are divisible by very marked anatomical characters into two great groups, the *Articulata* and the *Annuloida*. The *Articulata*, comprising the *Insecta*, *Myriapoda*, *Crustacea*, and *Arachnida*, possess a definitely segmented body; the segments are provided with appendages; the anterior appendages are modified to subserve the functions of sensation and manducation. There is almost always a heart, communicating with the general cavity of the body, and propelling the true corpusculated blood which that cavity contains. The nervous system consists of a longer or a shorter chain of ganglia, and is perforated by the gullet.

Nothing can be more variable than the characters of the body, the appendages, and the nervous system among the rest of the Annulosa, which I include here under the title of the *Annuloida;* but there are two features in which they all agree: firstly, they possess a remarkable system of vessels, either ciliated or deprived of cilia, and containing a fluid very different, as I believe, from the true blood which fills the general cavity of the body or perivisceral space; secondly, in no annuloid animal, so far as I am aware, has any true heart been hitherto discovered. Contractile vessels belonging to the system just referred to abound, but no organ comparable in structure to the heart of other animals has yet been found in any of the *Annuloida*.

The *Annuloida*, as thus defined and limited, fall into two parallel series, the one of which comprehends, for the most part, dicœcious forms; while in the other, hermaphrodism predominates. Of the former, the *Annelida*, of the latter, the *Trematoda*, may be regarded as the most typical examples; while, on the other hand, the *Echinodermata* and *Rotifera*, the *Tæniadæ* and the *Nematoidea* may be considered as the most aberrant groups in their respective series. I propose to commence with the consideration of the *Annelida* and the *Rotifera* and then to take up the *Trematoda* and their allies, deferring until the last the *Echinodermata*.

The Annelida.—I include under this head the errant and tubicular Annelids of Cuvier, and the *Gephyrea* of De Quatrefages; and I am inclined to think that the *Terricola*—the Earthworms and *Naides*—should be separated from the *Scoleidæ* of Milne Edwards, and brought into the same group, their hermaphrodism, the sole important respect in which they differ from the ordinary *Annelida*, constituting, as we shall see, no really sufficient ground of separation. So far as external structure is concerned, the genus *Polynöe* (which I have on this account carefully studied) is, perhaps, the best fitted to serve as the type to which other *Annelida* may be referred; and as the nomenclature and homologies of the parts of the *Annelida* have hardly yet received the attention which they deserve, I will enter at some length into the subject, selecting the commonest form of the genus, *P. squamata* for illustration.

Polynöe squamata is an elongated vermiform animal, whose body is composed of a succession of portions for the most part similar and equivalent to one another, but presenting peculiar modifications at the anterior and posterior extremities. In accordance with the system of nomenclature which has already been introduced among other *Annulosa* with so much success by M. Milne Edwards, I propose to term each such portion a *somite*—reserving the use of the word "segment" to indicate generally a portion of the body, without implying its precise equivalency to one somite or to many. Thus, then, the body of the *Polynöe* is composed of a series of twenty-six "somites," terminated anteriorly by a "segment," the *prestomium* (kopf-lappen, Grube) and posteriorly by another, the *pygidium*, which may or may not represent single somites.

Fig. 1.

Polynöe squamata.

A. Viewed from above and enlarged. *a, b, c,* etc. as in Fig. 3. *e.* Elytra. *f.* Space left between the two posterior elytra. *g.* Setæ and fimbriæ of the elytra.
B. Posterior extremity, inferior view. *h.* Inferior tubercle.
C. Section of half a somite with elytron. *i.* notopodium. *k.* Neuropodium.
D. Section of half a somite with cirrus.

If one of the somites from the middle of the body (Fig. 1, C D) be examined separately, it will be found to be transversely elongated, so as to be about three times as broad as it is long, and to be slightly convex above and below, presenting a deep, median, longitudinal groove inferiorly. Laterally the somite is produced into two thick processes, homologous with the appendages of the higher *Annulosa*, and which I propose to denominate "*parapodia*," as a single substantive term equivalent to the phrases "pedal tubercle," "foot," etc., at present in use.

Each parapodium divides at its extremity into two portions

("rame dorsale" and "rame ventrale" of Audouin and Milne Edwards) a superior and an inferior, which may be denominated respectively the *Notopodium* and the *Neuropodium*, the one occupying the "dorsal," the other the "neural" aspect. The latter is in this species so much the larger that the notopodium appears like a mere tubercle projecting from its upper surface. In other *Annelida*, however, and in the young state of *Polynöe*, the notopodium is as large as the neuropodium. Both divisions of the parapodia are armed with peculiar hair-like appendages, composed of chitin, and developed within diverticula of the integument ("trichophores") very similar to the hair-sacs of the *Vertebrata*, in which their bases always remain inclosed. These weapons can be protruded and retracted by muscles attached to their sacs, and they vary exceedingly in form. Three distinct kinds are observable in *Polynöe* alone (Fig. 2). The notopodium and the neuropodium each carry a single, sharp, style-like "aciculum," the greater part of whose length is imbedded in the parapodium and its divisions, but whose point just projects at about the centre of the latter. The neuropodial aciculum is very much longer than the notopodial.

Superiorly the notopodium carries two transverse rows of more slender organs of a similar nature, the "setæ:" the proximal set are much shorter than the distal, but even the latter do not attain a length of more than $\frac{1}{18}$ of an inch (Fig. 2, G).

The proximal set are somewhat knife-like in shape if viewed in profile, consisting of a comparatively short, straight "handle," by which they are imbedded in their sacs, and of a thick, rounded, curved blade, tapering to a fine point at its extremity. Close set transverse ridges, finely serrated at their edges, and inclined obliquely to the surface of the blade, traverse its convex anterior circumference, leaving the back free. The distal setæ (G) have a very similar structure, but they are much elongated and very slender. The handle is longer; and the blade little curved and simply set on at an angle with the handle, is produced at the end into a long and delicate filament. The base of the blade is beset with incomplete ridges, like those of the short setæ (E), but towards the middle these ridges appear to encircle the blade completely (F), assuming the aspect of so many closely imbricated concentric scales, before finally becoming obsolete upon the extremity of the seta.

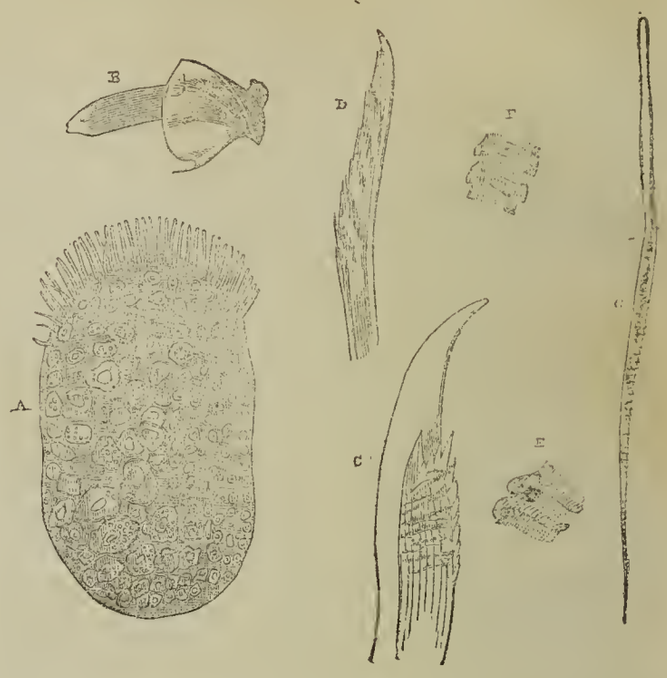
The neuropodial aciculum needs no special notice, except that the extremity of its trichophore projects as a sort of papilla, less obvious in full grown specimens, which divides the neuropodium into an upper and a lower portion, the former containing about half as many setæ as the latter. The apertures of the trichophores are placed between lobe-like prolongations of the neuropodium, to which the special term of *labia* (Grube) may be applied. In this species they present no remarkable peculiarity beyond their inequality.

The neuropodial setæ (C, D), although at first sight very different from the notopodial are, in truth, constructed on essentially the same plan, the blade, however, being excessively short, while the handle is proportionably elongated. The blade is subcylindrical at its base, pointed and slightly curved. Eight or nine transverse ridges extend around about two-thirds of the circumference of its proximal half; the basal ridges are narrow, and merely serrated, but towards the apex the ridges become deeper, and the serrations pass into strong teeth, at the same time one side of the ridge is elongated into a strong point.

Attached to the under surface of the parapodium by a somewhat enlarged base, with which it is articulated, is a smooth conical filament, — the neuropodial cirrus (c'); it hardly reaches to the end of the neuropodium. Again, springing from the neural surface of the somite, close to the parapodium, there is a small pyriform tubercle (h), divided by longitudinal grooves into about eight segments. This is possibly connected with the reproductive apparatus.

The appendage of the notopodium or rather of the notopodial side of the parapodium and somite, varies according to the particular somite which may be selected. In some somites this appendage is a cirrus (Fig. 1. D. c.) similar to the neuropodial cirrus, but much larger, equalling the semi-diameter of the body in length, and presenting an enlarged pigmented bulb of attachment to which the filament of the cirrus, which is cylindrical for about two-thirds of its length, and then becomes enlarged and suddenly tapers to its extremity, is articulated.

Fig. 2.



Polynöe squamata.

A. Elytron viewed from above. B. Tooth. C, D. Neuropodial setæ. E, F. Parts of the blade of the same, more highly magnified. G. Notopodial seta.

In the other somites the appendage is a large, thin, oval plate—the *Elytron*, (Fig. 1. C. c.)—attached by a thick peduncle, and having its long axis directed obliquely outwards and backwards. The surface of the elytron (Fig. 3. A.) is covered with an ornamentation of larger or smaller tubercular prominences, granulated and ridged upon their surface. A part of the inner and anterior edge of each elytron overlaps or is overlapped by its fellows for a certain extent of its circumference, which is so far smooth, but in the rest of its extent it is fringed with coarse brownish filaments or *fimbriæ* which arise from the upper surface just within the edge, and are obviously structures of the same order as the tubercles.

Such is the structure of one of the middle somites of *Polynöe squamata*—and the anterior and posterior ones, with the exception of the first and second, present only minor differences, in the proportions of the setæ, in the figure of the elytra, etc. etc. The first somite, which contains the mouth, has been very properly distinguished by Grube as the "mund-segment,"—oral segment. I propose to give it the nearly equivalent name of *peristomium*. The parapodia of this somite are narrow and elongated (Fig. 3. m.); they are obscurely divided at their extremity into a rudimentary neuropodium and notopodium, and give attachment to a pair of large peristomial (c' c) cirri ("cirrhes tentaculaires," Andouin and Milne Edwards; "Fühler-cirren," Grube), of the same structure as the notopodial cirri, which stretch forwards by the sides of the mouth.

The apex of a single small aciculum issues rather above the point of division of the peristomial parapodium and two minute curved setæ accompany it. These, so far as I am aware, have been hitherto overlooked (a); but they seem to demonstrate, in a very interesting manner, the nature of the appendages of the peristomial segment.

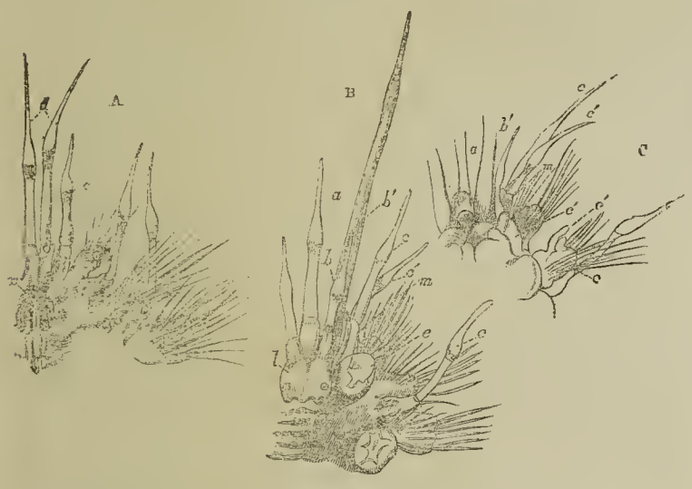
The second somite differs from the rest only in the great elongation of its neuropodial cirrus, which is directed forwards and applied against the mouth (Fig. 3. C. c').

The peristomium and the prestomium together are ordinarily confounded under the common term of "head" (Fig. 3, B C). The latter is an oval segment placed altogether in front of and above the mouth—flattened superiorly—presenting on its postero-lateral edges four dark spots, the eyes, and possessing five cirriform appendages—two pairs and a single median one. The latter (*a*) may be termed the prestomial tentacle ("antenne mediane"—Milne Edwards); it is similar

(a) At least, in all the descriptions of the adult Polynöe. They are particularly mentioned, however, by M. Max Müller in his valuable paper, "Ueber die Entwickelung und Metamorphose der Polynoen."—Müller's Archiv. 1851.

in structure to an ordinary cirrus. Of the other appendages, the upper one upon each side (antenne mitoyenne—A. and M. E.) also resembles an ordinary cirrus (*b*); but the lower (antenne externe) (*b'*) is much larger, and is capable of extreme elongation and contraction (b), while the ordinary cirri are merely flexible. Although at first sight probable, yet it would appear from M. Max Müller's account of the development of Polynöe, that these two appendages do not, like the two peristomial cirri which they essentially resemble, correspond with the notopodial and neuropodial cirri of a single parapodium, inasmuch as they arise from perfectly distinct portions of the prestomium. It is very possible that each represents the appendage of a somite, and in this case the prestomium would be composed of at least two somites. Whether the prestomial tentacle indicates another, or whether it is merely an appendage of such a nature as the labrum or the rostrum of a Crustacean, there is no evidence at present to show, nor do we know whether the eyes, as in the Crustacea, represent a distinct somite or not. The probability is, however, that several somites enter into the composition of the prestomium, just as in the corresponding region of the head of a Crustacean.

Fig. 3.



Polynöe squamata.

A. Posterior extremity from above. *c*. Notopodial cirrus of last somite. *d*. Pygidial cirri. *x*. Anus.

B. Anterior extremity from above. *a*. Prestomial tentacle. *b*. Superior and *b'* inferior prestomial cirrus. *c*, *c'*. Notopodial and neuropodial cirri. *e*. Peduncle of first elytron. *l*. Prestomium. *m*. Parapodium of peristomium. C. Inferior view of anterior extremity, letters as before.

It is highly interesting to remark, that thus, in the *Polynöe*, as in the higher *Annulosa*, the "head" results from the modification of a number of somites, some of which lie in front of, and others behind, the mouth. The movements and evident extreme sensitiveness of the inferior prestomial cirri during life indicate that they perform the functions, as well as occupy the position, of antennæ.

I have termed the hindermost segment of the body *pygidium* (Fig. 1 B, Fig. 3 A). It is narrow, and divided at the end into two articular bases for the pygidial (*d*) cirri, which are as long as the three last somites, and resemble the notopodial cirri in form and structure. They extend directly backwards, almost parallel with one another and with the notopodial cirri of the last somite, which are thrown backwards and downwards. It seems probable that the pygidium represents only a single somite.

The anus is not terminal, as in many Annelides, but is seated in the middle of a strongly raised papilla (x), which projects from the dorsal surface of the penultimate somite, and whose sides are produced into about fourteen folds. The two last elytra have their edges excavated, so as to leave a space over the anus (Fig. 1, A f).

I have stated that notopodial cirri and elytra do not coexist upon the same somites; and the order of arrangement of the elytrigerous and cirrhigerous somites is very curious. The 1st or peristomial somite is cirrhigerous, and so are the 6th, 8th, 10th, 12th, 14th, 16th, 18th, 20th, 22nd, 24th, 25th and 26th; while the 2nd, 4th, 5th, 7th, 9th, 11th, 13th, 15th, 17th, 19th, 21st, and 23rd somites bear elytra, making twelve pairs in all. In those species of *Polynöe*, which possess more than twelve pairs of elytra, they occur after the twelfth, not on every second, but on every third somite; but the second and third elytra always succeed one another without interruption on fourth and fifth somites.

In no Annelid is the structure of a somite more complex than in *Polynöe*; and there are but very few parts not found in Polynöe existing in other *Annelida*. The careful study of this species, therefore, furnishes us with almost a complete nomenclature for the external organs of the whole group; and it will be found that the other forms of *Annelida* differ mainly in the greater or less development and modification of the organs which have just been described. It is impossible, however, to enter at length into this subject, nor can I do more than remind you of the peculiar habit of those Annelids which, in contradistinction to the free and errant forms, of which Polynöe is the type, are sedentary, and fabricate an external tubular calcareous or arenaceous residence, or *vermidom*, and hence have been called the *Tubicola*.

The alimentary canal of the *Annelida* rarely presents any marked distinction into stomach and intestine, and is almost always of the same length as the body, extending, without folds or convolutions, from its anterior to its posterior extremity; but in *Chloræma*, *Pectinaria*, *Sternaspis*, etc., it is more or less convoluted. It is attached by membranous bands, or more complete mesenteries, to the walls of each somite, and very commonly presents a dilatation between every pair of mesenteries. In most *Annelida* the intestine acquires in this way, merely a moniliform appearance, but in *Polynöe*, *Aphrodite*, *Sigalion*, and their allies, long cœca are given off upon each side of the alimentary canal, and terminate—sometimes becoming more or less convoluted—at the upper part of each segment, close beneath, or in, the branchiæ, where such organs exist.

The anterior portion of the alimentary canal is, in a great number of the *Annelida*, in fact in all the typical *Errantia*, so modified as to constitute a distinct muscular pharynx, the anterior portion of whose wall can be everted, like the finger of a glove, from the aperture of the mouth, and the posterior portion thus protruded, so as to form a long proboscis. In *Polynöe squamata* the proboscis is one-fourth as long as the body, and its walls are very thick and muscular. At its anterior extremity it is surrounded with a circle of small papillæ, immediately behind which are four, strong, pointed and curved horny teeth, implanted on the muscular wall. Each tooth has a little projection upon its convex edge, which is connected by a short strong ligament with the corresponding projection of another tooth; and the one pair of teeth thus connected, works vertically against the opposite pair.

In *Nereis* there are two powerful teeth working horizontally, besides minute accessory denticles. In *Syllis* the chitinous lining of the pharynx is produced into a circle of sharp teeth anteriorly, and there is in addition a much stronger triangular median tooth. In *Glycera*, which possesses a pair of teeth, the extremity of the protruded proboscis is covered with very remarkable papillæ. The most complex arrangement of teeth, however, is that presented by the *Eunicidæ*. In *Eunice* there are altogether nine distinct pieces: two large, flat, more or less calcified portions united together below, and three cutting and tearing teeth on the right side working against four on the left. The tubicolar Annelids possess neither proboscis nor teeth.

No special hepatic gland appears to exist in the *Annelida*, unless the intestinal cœca perform that function, and the secretion of the bile is doubtless effected by the glandular tract, which extends for a greater or less distance in the walls of the alimentary canal. A pair of glandular cœca, whose function is not known, are appended to the base of the proboscis in *Nereis*.

The general cavity of the body, or perivisceral cavity, which is included between the parietes of the alimentary canal and those of the body, is filled with a fluid which I regard as the homologue of the true blood of other animals, and, like it, contains definite corpuscles, which are usually, as in the Invertebrata in general, colourless. They are red, however, in *Glycera*, and in a species of *Apneumea* (De Quatrefages). The parapodia, the cirri, the branchiæ, and all the other important appendages of the Annelids contain a cavity continuous with the perivisceral cavity, and are therefore equally filled with the blood. The circulation of this fluid

(b) I have never observed any invagination such as is stated to occur by Audouin and Milne Edwards, p. 10. Histoire Naturelle du Littoral de la France. 1834.

effected partly by the contraction of the body and its appendages, partly by the vibratile cilia, with which a greater or less extent of the walls of the perivisceral cavity is covered.

In a great number of the *Annelida* no part of the body is specially adapted to perform the function of respiration, the aeration of the blood probably taking place wherever the integuments are sufficiently thin; and even when distinct branchiæ ordinarily exist, members of the same family may be deprived of them. In *Polynöe squamata*, ciliated spots may be discovered on the dorsal side of the bases of the parapodia, at any rate, in young specimens, which appear to represent branchiæ. In a new species of *Polynöe* (for which I propose the name *P. astericola*, in consequence of having found my specimens lodged among the suckers in the ambulacra of *Uraster rubens*), the parapodia give rise, at corresponding points, to large, richly ciliated, malleiform tubercles, in which the cœca of the alimentary canal terminate. Branchiæ of a similar structure appear to exist in *P. malleata* (Grube).

In *Sigalion*, a filiform, ciliated branchia depends from the upper part of the somite, beneath the elytron, and besides this, curious little ciliated palettes are arranged upon the dorsal surface of the parapodia, and upon the sides of the anterior somites. But the best developed branchiæ among the Annelids are possessed by the *Amphinomidæ*, the *Eunicidæ*, the *Terebellidæ*, and the *Serpulidæ*. The branchiæ in the three former families are ciliated, branched plumes or tufts attached to the dorsal surface of more or fewer of the somites. In the last they are exclusively attached to the anterior segment of the body, and present the form of two large plumes, each consisting of a principal stem, with many lateral branches. The stem is supported by a kind of internal skeleton, of cartilaginous consistence, which sends off processes into the lateral branches.

(To be continued.)

A COURSE OF LECTURES

ON THE

NATURE AND TREATMENT OF THE DISEASES OF THE EAR.

DELIVERED AT

St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.

Aural Surgeon to the Hospital, and Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

(Reported by JAMES HINTON, Esq.)

Lecture III.

THE EXTERNAL MEATUS AND ITS EXPLORATION.

Gentlemen,—The external auditory meatus is a tube formed partly of cartilage and partly of bone. It extends in a transverse direction from the concha of the outer ear to the membrana tympani internally. Its length varies in the adult from an inch and a-quarter to an inch and a-half.

The Osseous Meatus.—The lower wall of the osseous meatus presents a convexity about its middle part which causes a slight central contraction of the calibre of the tube; and this convexity, combined with a similar one in the anterior wall, as a general rule prevents the anterior and inferior fourth or fifth of the membrana tympani being visible to the surgeon during his exploration. The superior and posterior walls are slightly concave. The anterior wall of the meatus extends three or four lines further inwards than the posterior; and, as the membrana tympana is attached to the inner extremity of each wall, hence the oblique position which this membrane possesses. The upper wall has intimate relations with the middle cerebral cavity; the posterior is separated by a thin lamina of bone only from the mastoid cells; the anterior wall forms part of the glenoid cavity and the fossa parotidea. The outer orifice of the osseous meatus is of an oval shape, its longer axis being from above downwards and slightly backwards. The anterior and inferior parts of the orifice are rough and scabrous, the fibro-cartilage of the meatus being firmly inserted into them. The posterior and superior parts of the orifice are smooth, and perforated by numerous orifices for the transmission of vessels. The inner orifice of the meatus is round, and in the groove in its margin the circumference of the membrana tympani is inserted.

The Membranous Meatus consists of the following laminæ, beginning internally: 1. The epidermis; 2. The dermis; 3. The periosteum. Between the dermis and the periosteum of the outer portion of the tube are placed fibro-cartilage, cellular tissue, and ceruminous glands. The *epidermis* forms a cul-de-sac, which covers the whole of the inner surface of the dermis, and is prolonged over the outer surface of the membrana tympani, of which it forms the most external lamina. In the outer part of the tube the epidermis is thick, and is perforated by the ducts of the ceruminous glands; near to the outlet it presents orifices for the passage of the hairs which frequently protect the entrance of the meatus. At the inner half of the tube the epidermis is extremely thin; its surface shines. The scales of which the epidermis is composed are being constantly thrown off from the free surface of the membrane; they mix with the cerumen, and, in the healthy ear, are excreted with it.

The *dermis* also forms a cul-de-sac by being continuous with the dermoid layer of the membrana tympani. Near to the orifice of the meatus the dermis differs but little from that covering the cartilage of the concha, with the exception that it gives insertion, particularly in elderly persons, to numerous short strong hairs. More internally, the dermis is remarkable for its extreme sensibility, and it gives passage to the ducts of the ceruminous glands. The outer half of the dermis is firmly connected, anteriorly and inferiorly, to the fibro-cartilage; posteriorly and superiorly where there is no fibro-cartilage, the dermis is connected to the superior and posterior parts of the osseous meatus by loose cellular tissue, in which the ceruminous glands are placed. At the inner half of the tube the dermis is intimately connected to the periosteum, the two membranes being frequently inseparable.

The outer half of the membranous meatus contains, in addition to the laminæ hitherto noticed, *fibro-cartilage*, which is continuous inferiorly with that forming the external ear, and internally it is attached to the rough margin of the osseous meatus by fibrous tissue, which admits of considerable motion taking place between the cartilage and the bone. The outer part of the fibro-cartilage of the meatus projects and forms the tragus. The fibro-cartilaginous meatus does not form a complete tube, being deficient at its posterior and superior third, where the blood-vessels of the bone freely communicate with those of the meatus. The shape of the *orifice* of the meatus, as constituted by the fibro-cartilage, is more oval than that of the osseous meatus; it is composed anteriorly and inferiorly of the fibro-cartilage covered by the dermis, posteriorly of the anterior border of the concha, which projects slightly forwards. The superior part of the orifice does not contain any fibro-cartilage; but, in the remaining portions the dermis is connected to the fibro-cartilage by very dense cellular tissue. That the orifice of the meatus externus is of an oval shape is shown by simply introducing the index finger within it, in the living subject; it will be found that the finger (itself of an oval shape) enters some slight distance when its anterior and posterior surfaces are in contact with the anterior and posterior surfaces of the orifice; but if the posterior surface of the finger be directed upwards and the anterior downwards, its entrance is impossible. The orifice of the external meatus is its narrowest part, and its cavity and the membrana tympani are guarded by the slight projection posteriorly of the tragus, while the posterior margin of the orifice projects somewhat forwards. Thus the introduction of a foreign body is prevented by the flap of the tragus covering the orifice; and if that be pushed aside or penetrated, then the projecting posterior border of the orifice directs the body against the anterior wall of the meatus. This condition of the orifice of the meatus is also of great use in preventing the sudden rush of cold air to the surface of the membrana tympani, and the passage of water to it when the head is immersed or copious ablutions are practised. The projection of the tragus backwards, and of the cartilage forming the posterior margin of the meatus forwards, consequently gives a curved form to the tube, which is increased by the direction of the osseous tube, which is first slightly forwards, then backwards, and lastly somewhat forwards again.

In the child at birth only the rudiments of the osseous external meatus are present: these consist of the delicate osseous ring, but which is incomplete at the upper fourth, and at this

part the surface of the bone is smooth and slightly concave; the upper part of the membranous meatus rests in it, and the inner margin of the remainder is attached to the annulus auditorius; but its outer surface is in contact with the adjacent tissues. As the child grows the smooth superior surface is gradually developed into the concave upper wall of the meatus, and from the osseous ring spring the anterior, posterior, and inferior walls.

In the *exploration* of the meatus, the object of the Surgeon is threefold:—

1. To render the meatus as straight as is practicable.
2. To dilate slightly the outer membranous and cartilaginous portion.
3. To throw as much light as possible on the walls of the meatus, and on the membrana tympani.

To render the meatus straight, it is necessary to press the tragus forwards, and the cartilage forming the posterior wall of the meatus backwards. When the meatus is very large, this may be accomplished by simply pulling the outer ear backwards by the finger and thumb, at the same time that the tragus is pressed forwards by another finger; but this is better accomplished by the aid of the *speculum auris*, which at the same time dilates the orifice. Some writers have supposed that it is not desirable to use any instrument for the purpose of dilating the orifice of the meatus; but this orifice is generally so small, that it is important to dilate it as widely as possible without causing pain, in order to allow the passage of a sufficient volume of the rays of light to permit the inspection of the surface of the meatus, and of that of the membrana tympani. That the orifice of the meatus is susceptible of being dilated, is shown by placing the end of a finger into it, and then pressing it gently inwards, when the walls are felt to yield somewhat, and to embrace the finger firmly.

Speculum Auris.—A variety of complicated and somewhat expensive instruments has been invented from time to time, for the purpose of rendering the outer half of the meatus straight, for slightly dilating it, and for concentrating the rays of the sun, or of an artificial light, on the surface of the tube, and on the membrana tympani. The one in general use previous to the last ten years was the *forceps-speculum:* it is made of steel, and consists of two handles or branches crossing each other, but having a strong spring between them; each of these branches is attached at the extremity furthest from the handle to half a metallic funnel, and when the handles are pressed together, the two halves of the funnel separate. It is used by placing the small extremity of the funnel in the outer part of the meatus, and then opening it so as to dilate the tube. The objections to the forceps-speculum, and, indeed, to all modifications of it, consist in their being cumbrous, expensive, and not efficient. Thus they are too heavy to remain in the external meatus without being held; on account of their weight and size they cannot be used with delicacy, and a sensitive meatus is liable to be pained by them; further, they require the exclusive use of one hand, so that they cannot be well employed during the performance of an operation, or the use of applications to the meatus or membrana tympani. As the calibre of the meatus varies much in different persons, it is requisite for the Surgeon to have several sizes of this instrument, and its use is, therefore, attended with considerable expense. Another great objection to the forceps-speculum is, that when the two portions of the funnel are separated in the meatus, two spaces are left between them, through which hairs, or portions of epidermis and cerumen, often project and obstruct the passage of light.

To remedy some of the above defects, the *tubular ear-speculum* was invented by Dr. Gruber, of Vienna, and it was introduced to the notice of English Surgeons by Mr. Wilde, in his paper on otorrhœa, published in 1844 in the *Dublin Journal of Medical Science*. Mr. Wilde describes it as consisting of "a small conical tube of silver, measuring about an inch and a-half in length, five-eighths of an inch in width at the greater aperture, and varying from two to four lines in the clear at the small extremity." The interior and exterior of each extremity is polished; both openings are circular. Two or three sizes are recommended. There can be no doubt that this speculum was a great improvement over any previously suggested; but, upon comparing the shape of this speculum with that of the tube it is intended to explore, it will be perceived that it has two grave defects. The first of these defects consists in its being of a coniform shape at its small extremity, for the widest part of the speculum is introduced into the narrowest part of the tube, and its extremity projects into and obstructs that portion of the meatus which it is desirable should be free. With a speculum of this shape, it is very difficult to explore the whole of the meatus, and it is not sufficiently embraced by the meatus to retain its position without being held. These disadvantages of the conical speculum were observed by Mr. Avery, who has devoted so much time, and has done so much to facilitate the exploration of the various mucous canals; and he suggested, that the narrower portion of the speculum, for about three-quarters of an inch in length, should be of the same diameter throughout. There remained, however, another very serious defect in the tubular speculum, and this consisted in the *circular* form of its small extremity. As I have previously observed, the Surgeon has but to introduce his finger into the orifice of the outer meatus of his ear, to assure himself that it is of an oval shape, and that the anterior and posterior walls of the tube are flat or only slightly concave; this shape also obtains in the bone. It will be apparent, therefore, that when a circular tube is introduced into this oval-shaped meatus, it may press against the anterior and posterior walls, while a considerable space above and below it remains unoccupied. As a rule, therefore, by means of an instrument of this shape, it is impossible to obtain a view of more than a small portion of the meatus and membrana tympani at the same time; and, when the meatus is very small, the circular tube does not give passage to a sufficient quantity of luminous rays to enable the surface of the membrana tympani to be discerned. Another disadvantage of the circular speculum is, that the pressure of its convex surface against the anterior and posterior walls of the meatus, which are nearly flat, is liable to produce pain, especially when the tube is small. It must therefore be evident, that the part of the speculum inserted into the meatus should be of an oval shape. I suggested this modification of the tubular ear-speculum in a paper in the *Lancet*, published in August, 1850; since which time most of these instruments have, I believe, been made of this shape. With the alterations above noticed, they have been found to answer every purpose for which a speculum auris can be required. For the purpose of holding the speculum more firmly, it is desirable that the expanded portion should be somewhat flattened; this flattening should be at right angles with that of the smaller extremity, instead of parallel with it. A set, composed of three or four specula, should be in the possession of the Surgeon. It has been suggested that the tubular ear-speculum should be made of glass silvered. The objection to this modification arises from the thickness of the material, which occupies too large a portion of the cavity of the meatus.

The Speculum Lamp.—For the purpose of exploring the condition of the external meatus and the membrana tympani, it is of course requisite that a strong light be used. Of all kinds of light that of the sun is decidedly the best; but in the changeable weather of England the presence of sunshine cannot be relied on; and, in certain seasons of the year, day after day may pass without an opportunity occurring of using the sunlight. Again, acute and other serious cases not unfrequently occur where the patient is confined to bed, whence it is impracticable to remove him, even supposing that the sunlight should be present. Patients too often require to be seen at night, or when the direct sunlight is no longer available; for these reasons it is obvious that a simple and efficient lamp for throwing a powerful artificial light into the external meatus is a great desideratum. Various kinds of lamps have been suggested; but after a careful examination of them, I think there are only two which can be recommended. These are Mr. Avery's and Mr. Miller's.

Mr. Avery's Lamp is of very simple construction, but can only be used with gas. It consists of two vertical iron rods, the anterior of which is about 4 inches high, and surmounted by a gas-burner which communicates with the vulcanized india-rubber gas tube. This vertical rod is connected by a horizontal rod 4 inches long with a second vertical rod about 3 inches high, to the summit of which is fixed a circular reflector about 4½ inches in diameter, and in the centre of which is an orifice for the Surgeon to look through, about half-an-inch in diameter. Attached to the horizontal rod is a ball-and-socket joint, and a handle and moveable piece by which the lamp may be held in the mouth, and thus both hands left at liberty.

Mr. Miller's Lamp, called after its manufacturer, was first suggested by Dr. Chowne, but it has undergone great changes

and improvements in the hands of the maker. It consists of a Palmer's wax candle enclosed in a tube about 6 or 7 inches in length, the foot of which is about 2½ inches in diameter, and hollow, so as to hold the reflector when not in use. For the free portion of the candle there is a cap which acts as an extinguisher and also as a defence to the candle when carried about. Very recently Mr. Miller has, at my suggestion, made one or two alterations in this lamp. They consist in having the tube for the candle much shorter and thicker, and in using a larger candle. By this means the necessity for renewing the candle is much less frequent, and also, what is of great importance, the length of the lamp is much diminished; so that, during the inspection of the ear when in the erect posture the shoulder of the patient, and when in bed the pillow, does not prevent the approximation of the lamp to the ear. This lamp will, I think, be found efficient and economical in every instance in which a strong light is required, and when gas cannot be used. By means of the ear-speculum, the lamp, and a probe, the condition of the external meatus and membrana tympani can be satisfactorily examined.

Mode of Examination.—After the preliminary investigation has been conducted, the patient being as nearly as possible on a level with the Surgeon, the latter, taking the lamp in his left hand, should feel and inspect the external ear and the orifice of the meatus without the use of the speculum. Having done this, a speculum adapted to the size of the meatus is to be taken in the left hand and introduced into the orifice of the meatus, care being taken that the long diameter of each coincides. If the speculum enters very easily, and there appears to be room for the use of a larger one, the next size should be selected, and the orifice fully dilated, as in all cases the larger the speculum used the greater the quantity of luminous rays entering the tube, and the more complete the view of the meatus and membrana tympani. The speculum having been introduced it is to be pressed slightly backwards for the reasons I have mentioned; and then by means of the lamp in the right hand the rays of light are to be directed successively on the several walls of the meatus and on the membrana tympani. The size of the different parts of the tube, the quantity, colour, and position of the cerumen, if present, should be noted; if absent, the state of the part of the tube in which it naturally exists, and the degree of vascularity of the dermis lining the inner half of the meatus.

A considerable degree of care is required in the examination of the meatus in the infant and child. The total absence of the osseous meatus in the former, and its very limited size in the latter, should always be borne in mind, or the Surgeon when he introduces the speculum is apt to press upon the membrana tympani. In many cases it is necessary only to open the orifice of the meatus, when the membrana tympani is at once seen without the introduction of the speculum further. In addition to the speculum and lamp it is sometimes desirable to make use of a probe in the exploration of the external meatus. I shall describe the mode of using it when I come to speak of caries of the osseous wall of the meatus, and the presence of foreign bodies.

ORIGINAL COMMUNICATIONS.

CASES ILLUSTRATING DIFFERENT METHODS OF TREATING PLACENTA PRÆVIA.

By HENRY OLDHAM.

Obstetric Physician and Lecturer on Midwifery, etc., at Guy's Hospital.

The following cases are selected from those which have occurred to me in practice, to illustrate the principal methods of managing placenta prævia, under different circumstances:—

Case 1.—*Placenta Prævia; Labour terminated by natural efforts, the Placenta being detached, and passing down with the head into the Vagina; Recovery.*—In August, 1847, I saw a poor woman, residing in Spitalfields, and engaged in the market, who was suddenly seized with hæmorrhage between the seventh and eighth month of her fifth pregnancy, which subsided spontaneously. In eleven days after it had ceased, it again came on profusely, and was followed by a coloured discharge; notwithstanding which, she had gone out as usual. Labour came on about a fortnight short of term, with a large loss of blood; and the assistant of a neighbouring Medical man saw her, but left her after ordering some medicine, without examining her. The bleeding returned; and, in alarm, I was asked to see her. She had evidently lost a large quantity of blood, and was in a very feeble state; but there had been some faint labour pains. On examination, I found the head low down in the vagina, with the placenta pressed between it and the back wall of the vagina, the edge, however, coming far forward over the head, but not directly below it. While examining, an expulsive pain was excited; and the head rapidly descended, and was expelled before the placenta, which followed with the body of the child. It had been completely separated, and during the short time I was present, and for some time before, hæmorrhage had ceased. The child (a male) was still-born. The poor woman, though seriously exhausted, recovered.

Case 2.—*Partial Placenta Presentation; Rupture of Membranes; Recovery.*—I was summoned to Mrs. P., residing a few miles from town, who was seized with hæmorrhage suddenly, within a fortnight of term with her fifth pregnancy, in December, 1852. She was a stout, florid person, of good general health, and her former labours had been favourable. She lost a large quantity of blood very rapidly at 5 p.m., and had become faint; on recovering from which, she had vomited a good deal, and some clots were occasionally discharged. Stimulants had been given, but generally were rejected, and some ice had been applied to the lower abdomen and vulva. I found this lady pale, with a feeble pulse and cold surface, and very apprehensive of dying. The vagina was filled with clots, on displacing which the os was found open and flaccid enough readily to admit the finger, and the placenta was felt passing from the anterior lip to the posterior, and there, by a stretch of the finger, the edge could be felt and the membranes beyond. Attempts were made to rupture the membranes by the finger; but they gave too much, and this was accomplished with the stilette of a catheter, after which a free flow of liq. amnii took place. An enema of the decoction of secale (ʒij. to the ounce), with a table-spoonful of brandy, was administered per rectum, cooled down by a few lumps of ice; a bandage placed round the abdomen; a blanket interposed between the body and the wet clothes; warm clothing over the body; and she was encouraged with the assurance of doing well. Hæmorrhage entirely ceased; labour pains soon came on, and she was confined of a dead child in three hours after the membranes had been ruptured, and recovered favourably. The portion of placenta which had presented was marked by a darker hue, and was broken; and at its edge, when floated out in water, were the thin broken edges of some large utero-placental veins.

Case 3.—*Partial Placenta Prævia; Rupture of Membranes; Version.*—June 16, 1846.—I met the late Mr. Quekett, of Wellclose-square, in the case of a female who had had seven children and two abortions, and was expecting labour in a fortnight. When advanced six months and a-half, after lifting a weight, hæmorrhage came on, which ceased spontaneously, and recurred five weeks after. Again it came on suddenly and in considerable quantity, accompanied with some slight pain, which was suspended from the faintness which ensued. The os was found dilatable, but not open beyond the circle of a shilling; and on removing a clot the placenta was felt over the os; but its edge could be detected, and the membranes beyond. I ruptured the latter with the finger, and the liq. amnii escaped freely. The fœtal heart was heard to beat. In three hours I saw her again, and found that pains had been scarcely perceptible, and some coagula had escaped, and that blood was then dribbling away more than I quite liked. The hand was introduced, the os steadily opened without difficulty, a knee brought down, and version performed. She recovered well. Child alive.

Case 4.—*Complete Placenta Prævia; Version; Child alive.*—I was engaged to attend a lady in her fourth confinement, whose former labours had been favourable, in July, 1851. Three weeks before term she was alarmed, in attempting to pass water, at finding a large quantity of blood flow away from the uterus, without pain. Under the influence of rest

in the recumbent posture, acid drinks, etc., it passed off, and did not recur until a week before her expected time, when a copious gush of hæmorrhage took place, soon after which I saw her. On examination, I found the os but slightly open, but its structure soft and yielding, and covered over with placenta. Without difficulty the hand was passed into the vagina; the os yielded to steady pressure; the placenta was separated by the advancing hand, the membranes ruptured, and a foot seized and brought down, and a living male child extracted with facility. The placenta was completely over the lower segment of the uterus. This lady has had two natural labours since.

Case 5.—Placenta Prævia; Difficult Version; Craniotomy.—In the summer of 1855 I was requested to see a lady at Clapham with Dr. Young. Her second labour, at term, had been ushered in with hæmorrhage, which was ascertained to depend on the placenta being over the os uteri. The amount of bleeding had not been great. I found the placenta completely over the os uteri, which was already opened to the size of half-a-crown, and yielding. I introduced my left hand, and seized a foot, which was brought down, and a tape fixed over it. Traction was made at first steadily; the power of it increasing with an unusual resistance. The body of the uterus, however, so firmly grasped the fœtus, that no power I could exercise, aided even with efforts to raise the head, would make it revolve on its axis. Fearing rupture, which appeared to me imminent, I was obliged to perforate the child's head, after which version was completed. This lady recovered, and, Dr. Young writes me, is now three months advanced in another pregnancy. Out of numerous instances, and a large variety of cases, in which it has fallen to my lot to perform the operation of turning, I have never encountered so much difficulty when once the foot had been seized as in this instance.

Case 6.—Partial Placenta Prævia; Rupture of Membranes; Arm Presentation; Version; Laceration of Cervix; Death.—A poor woman, residing in the Borough, began to bleed at the onset of labour, when the Medical man who saw her, feeling an edge of the placenta within the disc of the os, ruptured the membranes. After this the arm descended, and I was summoned to attend her. The os uteri was by this time moderately dilated, and dilatable, and the patient in good condition. Version was performed by the gentleman without any undue effort, and a dead child delivered. The placenta was readily removed, and the uterus contracted well. I was struck, however, with a considerable and continuous flow of blood afterwards, of a florid hue, and that, too, in spite of a well sustained contraction of the body of the uterus. Laceration of the cervix was anticipated, and a sponge was applied to this part, a bandage to the abdomen, and brandy and arrowroot administered. After three hours' watching the bleeding desisted. An opiate, with saline medicine, was given, and the strictest rest enjoined. I did not see this patient again, but I learned that, in spite of all attempts to control the bleeding, it again and again recurred, and she sank exhausted fifty hours after delivery.

The expectation of the cervix having been torn in the act of version, was verified after death, there being an open rent, to the extent of an inch, on one side of the cervix. The gentleman who performed the operation was a powerful man, with a large hand and arm.

Case 7.—Another instance of laceration of the cervix, with fatal hæmorrhage, has occurred in my experience, where delivery was forced by the accoucheur, in consequence of a sudden bleeding in a complete placenta prævia. The lady, the mother of several children, had lost a great deal of blood by repeated bleedings in the last month of pregnancy, in one of which I saw her. She had been warned to keep strictly at rest, and the usual precautionary treatment against hæmorrhage had been prescribed. Feeling herself revived, she determined to stand up to dress her hair, and, in the act of doing so, had a return of hæmorrhage. The nearest Medical man was sent for, who proceeded at once to turn the child, which he accomplished, after overcoming, with considerable difficulty, the resistance of the os uteri. The uterus contracted well after delivery, but bleeding continued, and she died in two hours. The cervix was found to be torn in two places; one but slightly, but the other formed an oblique rent, nearly an inch in extent.

Case 8.—Placenta Prævia; Plug; Natural Delivery; Metrophlebitis; Death.—A poor, feeble woman, about 40 years of age, a patient of the Lying-in Charity of Guy's Hospital, had lost blood for three weeks at intervals, without applying for assistance, when a more copious hæmorrhage, with some amount of pain, induced her to send. When I saw her she was seriously exhausted, and the placenta was found completely covering the os, which, notwithstanding the loss, was still rigid. The vagina was filled with sponge, and a large pad of cotton wool was pressed against the perinæum externally, so as to bear freely on the sponge within the vagina, and with a T bandage formed an effectual plug. Brandy and beef-tea were provided, and freely given. This was at 2 p.m. At 9 p.m. I was informed that, in about an hour after leaving her, when she had rallied from her exhaustion, pains came on, and increased in severity. The student in attendance removed the plug, and at 6 p.m. she was delivered naturally, a part of the placenta being pressed out into the upper and back part of the vagina, and the head passing out before it. There was but little bleeding during this process, but she remained very feeble and exsanguine. The child did not exceed seven months, and was dead. On the third day after delivery she had a rigor, followed by signs of metro phlebitis, of which she died.

In this instance the plug appeared to have been of great service—not only controlling the bleeding, but stimulating the uterus to labour-action. In other cases, it has not in my experience proved so serviceable.

Case 9.—Placenta Prævia; Rigid Os Uteri; attempt to separate Placenta; Version without the introduction of the hand.—On Good Friday, 1852, I saw Mrs. —, with Dr. S. Ward. She was in bad health from cardiac disease, and was nearly advanced to the seventh month of her fifth pregnancy, when she was suddenly seized with bleeding, and lost a large quantity of blood in a short time. When Dr. Ward visited her he discovered the placenta completely over the os uteri, which was slightly open. He introduced a plug, and gave her support. When I saw her she had rallied from the loss of blood; but was pale, with a feeble pulse. Slight labour pains had set in, and the os was opening; but its structure was rigid and undilatable. Fearing a recurrence of the hæmorrhage I tried to separate the placenta from the uterus; but only partially succeeded, as it appeared to be unusually diffused and adherent. During this time bleeding was going on; and, finding that the hand could not be passed through the os uteri, I ruptured the membranes, and with two fingers stretched within the cavity of the uterus, and hand pressure from above, I had the good fortune to catch a knee, which I brought down and secured. With traction by this limb the os uteri was dilated, and she was slowly delivered of a dead male fœtus. I was obliged afterwards to introduce the hand to remove one portion of the placenta, which was very firmly adherent. The patient recovered.

Case 10.—Placenta Prævia; complete Artificial Detachment of Placenta; Arrest of Hæmorrhage; Natural Labour; Recovery.—At 4.45 a.m., on March 9, 1850, I was requested by Mr. Blenkarne, of Dowgate-hill, to see Mrs. W., who had been seized at midnight with violent bleeding after an attack of coughing. She was 43 years of age; of feeble constitution and delicate health; in whom the effects of hæmorrhage were likely to be very perilous. On examination Mr. Blenkarne found a placenta prævia. At the time of seeing her she was in a weak, low state, with a rapid pulse, and complained of some feeble labour pains. I found the os sufficiently patent to allow the introduction of two fingers, and the placenta was implanted completely over the disc. I fully expected that the os would yield to the dilating pressure of the hand in an attempt to turn; but in this I was disappointed, for when put on the stretch, its firm, dense tissue would not yield to such force as could prudently be used. By stretching the fingers freely into the uterus I was enabled to separate a portion of the placenta and reach its edge, and after a great deal of trouble to rupture the membranes. I then detached a larger portion of the placenta, and tried to gain the extreme edge by lifting off the placenta from it. During this time some bleeding was going on; but I had reason to hope that the placenta was completely detached. A sponge was placed in the vagina, and she was left lying on her side.

At 9.30 she appeared to be more comfortable. No hæmorrhage had trickled through the plug. No pain.

At 2 p.m. I found her in active labour, the os being fully dilated, and the head descending; both the placenta and the

sponge being pressed between it and the posterior wall of the vagina, with a coil of funis down. I removed the sponge and a large portion of the placenta during the pause between the pains, and shortly the head was expelled. I do not think an ounce of blood had been lost between the separation of the placenta and the birth of the child. The child was still-born. The mother recovered.

The two following cases are related to show the difficulty which would arise in some cases to this operation, from the placenta being widely diffused and adherent.

Case 11.—On the 27th June, 1847, I was sent for by Mr. Linnecar to see a poor woman in the neighbourhood of Charterhouse-square, who had reached the full period of pregnancy when she was seized with severe hæmorrhage (a gallon was said to have passed). This was on the 25th. Mr. Linnecar found her on the 26th much exhausted, and detected the placenta completely over the os uteri, which was but slightly open; and there was no evidence of labour. Ergot was given, and the vagina plugged. At 5.30 on the 27th I first saw her, and learned that blood had been draining through the plug, and that in this way a great deal had been lost. Brandy and opium had been given. She was in a very feeble state, but had revived under the influence of the stimulants which had just been administered. On removing the plug, and some clots with it, I found the os open to about the size of a half-crown, but soft and yielding; and I at once passed the hand gradually through it, raising the placenta with unusual difficulty from the anterior lip of the uterus; and perforating the membranes, I brought down a foot, and delivered her of a dead child. During this time she was freely supplied with brandy, but there was no uterine action until the breech was distending the vulva. In attempting to remove the placenta the cord gave way; and on introducing my hand, I found it universally adherent; and it took some time to separate, as it was diffused over a very large space. The uterus contracted well, but the patient was much exhausted; aggravated by the tedious operation of detaching the adherent placenta. Thirty drops of laudanum were given, and as much nourishment in the shape of beef-tea, brandy, and arrow-root as could be taken. Warmth to the feet and over the body, and perfect rest, were enjoined. She was, however, in so exhausted a state that we despaired of her recovery; and I was informed that she died. The placenta was thin, and extended over a larger surface than I ever witnessed. There was but little liq. amnii; and it appeared as though, during the process of growth, there had been a force directed on it to press it out. The attached decidual surface was thick and opaque; and a portion somewhat larger than the hand was broken and of a purple colour, indicating the presenting portion which had to be separated in the attempt to turn. It appears to me very probable that adhesion and diffusion of the placenta in a case of placenta prævia may be produced by such a preponderance of the solid contents of the ovum over the fluid, as to prevent the mobility of the fœtus; and thereby keep a certain pressure over the lower segment of the uterus during the latter months of gestation.

Case 12.—On September 29th, 1855, I saw Mrs. F., with Mr. Tuckey, of Bermondsey. She was far advanced in her seventh confinement, when she was seized, on the morning of the 29th, with copious flooding, followed by syncope, for which Mr. Tuckey was summoned to her. She had previously bled a fortnight before, and a placenta prævia was anticipated, which Mr. Tuckey detected. When I saw her she had quite recovered from the immediate loss, which had not seriously exhausted her. I found the os uteri covered over by placenta, but yielding enough to allow of turning, which was at once accomplished, and a live male child extracted. On removing the placenta, it proved to be bilobed, and very largely extended, so as almost to complete a zone. Between the two lobes the separated veins were quite distinct, with their thin coats and large orifices. In both these cases it would have been physically impossible to have detached the placenta without the introduction of the entire hand. No sweeping of the fingers within the os, or any other mode of digital manipulation, could have accomplished its complete separation.

The observations which flow from these and other cases which have occurred to me, may be thus summarily expressed.

1. There are two kinds of bleeding in placenta prævia: the bleedings before labour, and the bleedings at the onset of labour and during the first stage—the former occurring at intervals between the sixth and ninth months, and sometimes not at all; the latter unavoidable.

2. The cause of the bleedings during pregnancy arises, not from what is called the development of the cervix—if by that term is meant the expansion of its cavity into the cavity of the body of the uterus—but from the general softening of its tissue, making it more yielding, and from the walls of its cavity being more widely separated by the accumulation of mucus within; and then, again, by the augmented volume of the utero-placental circulation. It is this latter—but feebly supported at the os uteri—which is liable, under any disturbing cause, to break through the decidua and lining membrane of the placental cell-texture, and so occasion a maternal placental bleeding. It is checked for a time by the coagulation of blood in the cell-texture, favoured by its temporary collapse, again to break forth, if not carefully guarded against by rest, diet, and general precautions.

3. The bleeding during labour is the result of the same form of laceration, combined with separation of the placenta from the uterus, and the consequent regurgitating hæmorrhage from the uterine veins, and slightly from the torn arteries; the flooding from these sources being so copious and so exhausting, as rarely to allow the patient to survive delivery by the natural efforts. Occasionally, however, it does so, as in Case 1.

4. The opening of the os uteri in placenta prævia is generally retarded, first, by the exhaustion from the profuse bleeding which accompanies the very first pains, and for the time weakens, and often suspends labour; and, secondly, because the labour force has to overcome the additional resistance which the implantation of the placenta over the os uteri occasions; and hence, this part is commonly found to be correspondingly more dilatable than dilated.

5. In cases of partial placenta prævia, great confidence may be placed in rupturing the membranes and draining the ovum, with such stimulants to uterine action as are afforded by liberal support with stimulants, an abdominal bandage, and it may be ergot of rye, either by enema or by the stomach; but should a draining of blood go on, version should be performed.

6. In a larger or central placenta prævia, there is one method of treatment which excels all others for prompt and efficient relief, and to which all others ought to be subordinate, as rare and peculiar deviations from a general rule; and that is, to make a way to the membranes by introducing the hand within the uterus, separating the intermediate portion of placenta, and, at the same time, dilating the os uteri, bursting the membranes, seizing one foot, and turning by it. In selecting the time when version may be performed, the great thing to distinguish is the yielding or dilatable character of the os uteri; and, if this be present, the size of the disc itself, whether it be that of a shilling or a crown piece, is comparatively of little moment. It is too often a fatal delay, and a serious error in practice, to make the rule for the time of version depend on the extent of dilatation which the os has acquired.

7. In forced delivery, it requires great care that the dilating force be steadily applied, and evenly distributed, by the intelligent adaptation of the hand, so as to diminish the shock of forced delivery, and to guard the cervix from laceration, which may prove fatal from hæmorrhage. The operation of version, when a foot is grasped, is generally easy; but in one case it was attended with remarkable difficulty.

8. Version is sometimes prohibited, from the immediate exhaustion of hæmorrhage, or from rigidity of the os uteri, in spite of hæmorrhage. In the former case, a good vaginal plug, aided in its action by a large perinæal pad, and the free exhibition of stimulants, is a good temporary, but not always a permanent, resource,—version being sometimes required when reaction has succeeded. In the latter case, there is the valuable alternative of separating the entire placenta, so as to destroy the utero-placental circulation, rupturing the membranes, and exciting uterine action. This operation is difficult to perform completely, and sometimes impossible, from the wide diffusion of the placenta, or from morbid adhesion, or from both these conditions combined.

9. Occasionally, when the ovum is small, and the os uteri rigid, a knee or foot may be seized, without the introduction of the entire hand into the uterus, and the os be dilated by the pressure of the body and head of the child in the act of extraction, as practised by Dr. Robert Lee.

ON A CASE OF POISONING BY STRYCHNIA.

By JAMES STARTIN, Esq., F.R.C.S.
Senior Surgeon to the Hospital for Diseases of the Skin.

In the year 1831, when holding the office of Resident Medical and Surgical Officer of the Birmingham General Hospital, the rare opportunity was presented to me of witnessing, from its commencement to its close, a case of poisoning from an overdose of strychnia, administered medicinally by one of the Physicians of the institution; and of subsequently performing the post-mortem examination of the patient.

The circumstances which thus came to my knowledge have so important a bearing on the controversy still pending on many points which have arisen during Palmer's trial, and confirm so entirely the justice of the verdict, and the sentence of the judge which has now been executed, that I feel it a public duty to request a space in your pages to reproduce the case, which, although written and published upwards of twenty years ago, seems to have anticipated the Medical symptoms that in the unfortunate Mr. Cook's death-bed signalized poisoning by strychnia, as satisfactorily, to my mind, as could be accomplished by any chemical test at present published.

The case to which I desire to direct attention, occurred in March, 1831, in the practice of Dr. J. K. Booth, then one of the Physicians of the Birmingham General Hospital, who for some time previously had been prescribing strychnia (or rather the combination of strychnia and brucia then in use) in paralytic cases, with much benefit to the patients; and the following details, condensed from my notes taken at the bedside of the patient, were sent by Dr. Booth, to Dr., now Sir James Lomax Bardsley, of Manchester, a fellow-inquirer into the medicinal effects of strychnia, and were subsequently published by Sir James in the *Transactions of the Provincial Medical and Surgical Association* for the year 1834, Vol. II. pages 215 to 219.

Before transcribing the quotation, however, it is imperative justice to an able Physician to explain, that the apparently large doses of strychnia administered by Dr. Booth, were not in reality so great as they would seem; as the strychnia employed at the Hospital was made from nux vomica, and, therefore, contained, as before mentioned, brucia, the other alkaloid found in that substance, which it was then not the custom to separate, from this cause rendering the strychnine impure, and thus reducing the strength of the dose given to one-half, or, perhaps, to two-thirds of that indicated by the figures; six grains of brucine being identical in its effects with one grain of strychnia; besides, it must be borne in mind, that this was no insulated example of the employment, at the Hospital, of strychnia in this impure form; and that consequently, the doses administered to the patient were gradually and cautiously arrived at.

It will further be seen, that the fatal symptoms occurred in an individual enfeebled by pre-existing disease, as indicated by an apoplectic clot in the brain, and an atheromatous condition of the arteries both in this organ and in the spinal cord; thus the case must be regarded as interesting at the present moment, rather on account of the medical symptoms manifested during the accumulative action of the poison, than of the appearances observed on the post-mortem examination. I now transcribe the case, which was, that of W. J., aged 46, admitted into the Birmingham Hospital in the middle of March, 1831, suffering from hemiplegia of the left half of the body:—

"On the fifth day after admission, he (William Jones) commenced taking ½ a grain of strychnia, in the form of a pill, twice during the twenty-four hours, which dose he continued for five days without producing any sensible effects. On the tenth day, the dose was increased to 1 grain of strychnia twice a-day; and after the third dose, the specific action of this medicine was first manifested by pain in the head, back, and lower limbs, followed by involuntary contractions and startings in the muscles of the spine and inferior extremities. The contractions ceased, and returned at uncertain intervals during the night, but they subsided before morning. On the thirteenth day, the report states, that the same symptoms had recurred daily since the last date, about an hour after taking the dose of the strychnia, but in a diminished degree; and this had also been the case after taking this morning's dose. On the fourteenth day, the effect of the medicine was much less marked, and it seemed gradually to have lost its activity. On the fifteenth day, no sensible effects were produced by the pills, both according to the testimony of the patient himself, and of the observers in the ward. He was, therefore, directed to take an increased dose, viz., 1½ grain every morning only, and to be strictly watched. On the sixteenth day, after taking this morning, for the first time, the increased dose of strychnia, the patient seemed to be greatly excited, his countenance and gestures manifesting an unusual eagerness and solicitude. In the course of three hours, a degree of stupor came on, with loss of speech, followed by tetanic convulsive movements throughout the whole muscular system, the spinal muscles being especially affected, so as to produce a state of *opisthotonos*, which, but for the prevention of the assistants, would have thrown the patient out of bed. In the midst of this convulsive state, consciousness seemed to remain, as he still pointed to his head, when questioned as to the seat of his pain, although he had lost the power of speech. His pulse at this time was irregular and uncertain; his breathing short, laborious, and occasionally stertorous; his pupils dilated and insensible to light. After the period of twenty minutes there was an intermission of these symptoms, the convulsions gradually diminishing until for a minute or two they might be said to have ceased. In that interval the patient's speech returned, and he answered questions rationally, although in a hurried manner, complaining of violent pain in the head; but the tetanic paroxysm returned again and again with interruptions of a minute or less, until at the end of ten minutes he sank into a state of insensibility, and the spasms returned with increased violence, his breathing became stertorous or it was accomplished by gasps, his body was rigidly and permanently bent backwards, the pulse became imperceptible, cold sweats covered the surface, and death immediately followed. The immediate cause of his death was the spasm of the respiratory muscles, by which a state of asphyxia or suffocation was produced. He expired in two hours and three-quarters after having taken the increased dose (one grain and a half) of strychnia.

"*Post-mortem examination seven hours after death.*—April 16, 1831.—External appearances:—The fingers were firmly contracted, and the muscular system generally was in a state of spastic rigidity. *Brain.*—A considerable quantity of liquid blood flowed from the division of the scalp; the vessels of the dura-mater were also turgid with dark-coloured blood. The arachnoid membrane was opaque and thickened throughout all its inflections, but particularly at the base of the brain The basilar artery, and the arterial circle of Willis were somewhat diseased, and spotted with atheromatous deposition. In the right corpus striatum there was an apoplectic clot, dark coloured and grumous, of an irregular figure, and in bulk about the size of a very large walnut. The substance of the brain in contact and in the vicinity of this clot (which was clearly of previous formation) was in a state of *ramollissement* in several parts. The lateral ventricles contained about one ounce and a-half of yellowish serous effusion. The other parts of the brain were healthy. *The Spine.*—The investing membranes were found in a highly vascular and injected state, the pia-mater was of a florid redness, and everywhere congested with arterial blood; there were four recently extravasated patches of blood between this membrane and the arachnoid, which was also thickened and opaque as in the brain. These patches were situated opposite the last dorsal and the first two lumbar vertebræ, and in the lowermost a distinct coagulum could be recognised. The spinal marrow itself was healthy. It is to be regretted that the thorax and abdomen were not examined, owing to the interference of the friends of the deceased."

The anatomical preparation illustrating the morbid appearances in the spine of this patient, as above described, is still in my possession, and has lately been inspected by Sir B. Brodie and others, and although it has been preserved for twenty-five years, the characteristics indicated by the report are nearly as perfect as when it was first removed from the body. It is my intention to forward this preparation to the next meeting of the Pathological Society, for the examination of the profession; but, in the meantime, a line addressed to my residence from any medical or scientific enquirer, will enable him to verify the facts by personal inspection.

The most cursory comparison of the account of the last moments of William Jones, with those of Mr. Cook as detailed by the witnesses, Elizabeth Mills and Mr. W. H.

Jones, on Palmer's trial, will show an identity of phenomena in both cases, in nearly every particular. I, therefore, refrain from comment upon them, and shall only mention that Sir James Lomax Bardsley's paper, from which the extract above cited is made, contains further confirmatory particulars, as upwards of forty cases are adduced, with much interesting matter on the medicinal effects of strychnia, as also particulars of experiments upon dogs instituted by myself; at the request of Dr. Booth, at the time of Jones's death, which, perhaps, may settle the vexed question, as to the fullness or emptiness of the heart, after poisoning by this agent; both conditions of the organs being found, and at the time were accounted for by the animal's death taking place, either during an inspiration or during an expiration.

Before concluding these remarks I would beg to suggest a question I do not remember to have seen proposed, during, or since Palmer's trial; viz., What became of the half grain doses of calomel and morphia, made up with four grains of rhubarb into pills, by Mr. William Bamford, and administered to Cook, as stated, by Palmer? No trace of mercury or other ingredients having been discovered by the able chemists employed.

I also take the liberty of annexing a page torn from my rough case-book for 1832, containing a narrative of the medicinal effects of strychnia, as given by the patient herself, which was obtained after witnessing the above fatal case, to enable me to determine and distinguish the specific and more minute action of this medicine, in full remedial doses.

The patient, M. J., aged 30, admitted into the Birmingham General Hospital, under Dr. Booth, April 10, 1832, suffering from epilepsy and hysteric paraplegia, now takes 42 drops of the tincture of strychnia (equal to one-fifth of a grain) every six hours, viz., at the hours of twelve and six in the day and in the night. She has taken this dose since the 22nd inst., and states, "that a short time, about ten minutes, after each dose, she feels very heavy and dull; she also says, It makes me tingle and tremble all over my body, particularly in my legs and thighs; I then have a feeling of numbness and coldness, with a sensation of creeping over the skin; an aching, gnawing sensation next comes on chiefly in the back part of the head, and passes down the neck and between the shoulders and into all my joints, which appear as if they were crushed (I mean the sensation produced by slipping the foot aside, or spraining a part by over-exertion); these sensations occasionally increase so as to prevent my walking about, and I am obliged to sit down or I know I should fall. I am quite sensible (conscious) at these times, but have not power to stir or to speak. At variable periods, generally in the course of an hour, I am free from every uneasy sensation; I feel revived and quite well, and continue so for three or four hours; I then begin to experience uneasiness in my stomach (the epigastric region); I am much troubled with the wind, and have twitching tremblings all over my body, so that I cannot hold my needle. This state may last two hours, but it is very variable, and a sudden fright will bring it on at any time. I believe I have been taking the drops seven weeks; I began with 30 every six hours; during this time I have had but one fit, and that was three weeks ago, when, by Dr. Booth's direction, I increased the dose, taking one drop more every day."

This patient was discharged cured soon after this report.

3, Savile-row.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

CASES OF SEVERE INJURIES TO THE ELBOW JOINT.

(Series concluded from page 14.)

Case 6.—COMPOUND COMMINUTED FRACTURE OF THE ELBOW-JOINT—REMOVAL OF THE ENDS OF THE BONES—RECOVERY.

The following case, although not treated in a hospital, is yet one of so much importance in connexion with our subject, that no apology can be needed for here introducing it. The writer, while on a visit in Yorkshire, in December, 1854, had, through the courtesy of Mr. Fothergill, of Selby, an opportunity afforded him of seeing the patient, about a fortnight having then elapsed from the date of the accident. The following is Mr. Fothergill's letter in reply to an inquiry as to its final result:—

Sir,—I received your letter this morning, and hasten to give you a short history of the case about which you inquire:—On the 16th December, 1854, I was called to a man of the name of William Boyde, aged 64 years, and found he had sustained a severe compound fracture of the elbow-joint, attended with extensive laceration of the soft parts, and active hæmorrhage. The accident arose from the elbow being caught between the wood-buffers of two railway-trucks as he was crossing the line. On examination, I found the inner condyle of the humerus broken into several pieces; the olecranon was also in the same condition, and there were besides several small comminuted pieces of bone. I removed by the saw the inner condyle and the olecranon, and then with the forceps took away about a dozen small pieces of bone, the size of beans or peas. Two small arteries were secured, and the wound closed by sutures, and the arm placed in a half-bent position. Some hæmorrhage continued for about thirty hours, but ceased by the application of lint and lotions. At the end of three days I dressed the part, and to my surprise I found all doing well. The favourable progress continued, and about five weeks after the accident, I used a little motion to the arm. A small abscess afterwards formed, and on opening it a small piece of bone protruded and was easily removed. He was perfectly recovered at the end of six months, and from that time to the present has had a very useful arm, so as to bend the arm at right angles, but cannot perfectly extend the elbow. He is working at the railway as a blacksmith, and he told me to-day that the only inconvenience he feels is that he cannot strike with the great hammer. He can, however, perform all the other requisites of his trade the same as before. You must excuse this hasty report, and I beg you will make what use you like of it. I am, etc.

Jonathan Hutchinson, Esq. John Fothergill.

GUY'S HOSPITAL.

Case 7.—COMMINUTED FRACTURE OF HUMERUS INTO THE ELBOW-JOINT.—SUPPURATION OF THE JOINT.—AMPUTATION.—RECOVERY.

(Under the care of Mr. BIRKETT.)

A man, aged 46, was admitted, on March 5, 1855, into Guy's Hospital, under the care of Mr. Birkett. His right elbow had been crushed by being run over by a cart-wheel. The skin was not torn, but the bones composing the joint were much comminuted. The swelling which had resulted was already so great that an accurate opinion as to the extent of the injuries could not be formed. The man was confined to bed, and his arm kept at rest, and for several days seemed to do well. Subsequently, however, suppuration and sloughing of the soft parts took place, and the injury was converted into a compound fracture involving the joint. The external condyle of the humerus being partially detached and projecting, was removed. Profuse suppuration followed, and the man's powers became greatly reduced. Amputation was deemed to be his only chance of life, and was accordingly performed on May 1 (two months after the accident). On examination of the parts after removal, the joint was found to be perfectly disorganized, but there were evidences of commencing reparation in the exposed ends of the bones. The man made a good recovery.

Case 8.—CONTUSION OF THE ELBOW—SUPPURATION IN AND AROUND THE JOINT—AMPUTATION—DEATH.

(Under the care of Mr. HILTON.)

A cabman, aged 55, of temperate habits and in fair health, was admitted in December, 1854, under Mr. Hilton's care, into Guy's Hospital. His left elbow had been very severely contused by the cab-wheel, but there was no fracture nor any laceration of the integuments. Inflammation of the joint followed, and abscesses in various directions had to be opened. The cellular tissue of the arm was also involved in suppuration. Under the effects of the very profuse discharge, the man sank

into a most exhausted condition. As a *dernier ressort* amputation was performed three weeks after the accident. The man sunk afterwards, and died on the fourth day.

ST. MARY'S HOSPITAL.

Case 9.—COMPOUND FRACTURE OF THE BONES OF THE ELBOW-JOINT—SECONDARY AMPUTATION—DEATH FROM PYÆMIA—AUTOPSY.

(Under the care of Mr. WALTON.)

A cabman, aged 54, of most intemperate habits, was admitted in August, 1854, under the care of Mr. Walton, into St. Mary's Hospital. While intoxicated he had sustained a severe compound fracture into the elbow-joint. Primary amputation was strongly advised, but the man refused to submit to it. Unhealthy inflammation of the parts about the joint followed, and the man, in spite of the freest use of stimulants, sank into a very feeble state. Amputation was, under these circumstances, performed on the 14th day. Death from pyæmia followed, three weeks after the operation. At the autopsy a large quantity of pus was found in the shoulder joint of the injured side, and an abscess beneath the deltoid, There was no inflammation of the veins of the arm (as far as examined) nor were any purulent depôts in the viscera found. The stump was almost healed. Rigors had been a prominent symptom subsequent to the amputation.

ST. BARTHOLOMEW'S HOSPITAL.

Case 10.—COMPOUND FRACTURE OF THE OLECRANON—DESTRUCTIVE INFLAMMATION OF THE ELBOW-JOINT—AMPUTATION—DEATH FROM PYÆMIA.

(Under the care of Mr. STANLEY.)

James Nicolls, aged 50, was admitted, under the care of Mr. Stanley, into St. Bartholomew's Hospital, on March 14, 1854. He had fallen a height of sixteen feet, and had sustained a fracture of the left femur, a dislocation of the last phalanx of his left thumb, and a fracture of the left olecranon, by the side of which latter was a small wound, extending into the elbow-joint. These several injuries were treated according to the usual rules of art, and for two or three days all seemed doing fairly. Subsequently, however, destructive inflammation of the elbow ensued, and the man sank under the profuse discharge into a very feeble state. Amputation through the upper arm was performed on April 28, the man being then miserably weak and ill. Grating had been felt in the joint, but not that of rough bone. On examining the joint after amputation, it was found that the olecranon was broken through at its base, without, however, any great extent of separation. Excepting in a few spots, the cartilage had been entirely removed, but the exposed bones remained smooth, and were not carious. The cartilage, where remaining, was bevelled off at the edge. There was not any great amount of swelling of the soft parts.

After the amputation the man remained in the feeble condition he had previously been in, and death occurred two weeks later. At the autopsy pus was found in several joints, and there was a large abscess over the part of the left femur which had been the seat of fracture. A very careful dissection of the veins of the stump was made by Mr. Callender, Mr. Stanley's House-Surgeon, but no traces of inflammation could be found. In the thigh, however, the femoral vein commencing from near the seat of injury was lined with lymph, and contained softening coagula and pus. The stump was in process of healing. There could be no doubt but in this case the death was from pyæmia. As to whether the phlebitis of the femoralvein stood in the connexion of cause to this constitutional state, opinions will probably differ. There was no external wound whatever in the thigh, and looking at the extreme rarity of phlebitis without wounds, it is, perhaps, quite as likely that the pyæmic state resulted from the absorption of matters from the elbow, and that the phlebitis and the cellular abscess in the thigh were in the connexion with it of secondary and dependent processes of disease. The question is, however, one of extreme doubt.

Case 11.—COMPOUND FRACTURE OF THE HUMERUS INTO THE ELBOW-JOINT.—RECOVERY.

(Under the care of Mr. STANLEY.)

On the 31st of July, 1852, a stout, pale-faced man, aged 30, a brewer's drayman, was admitted into Kenton Ward, on account of an injury to his right elbow. In a state of half-drunkenness he had fallen from the shaft of his dray, and had his elbow crushed between the wheel and the kerbstone. The external condyle of the humerus was felt to have been broken; but the displacement was not great. There was a small wound by the side of the broken bone into which the finger might be introduced, and passed on into the joint. There was great contusion of the soft parts, and bleeding to a considerable extent had occurred. The arm was put up in a half-flexed position, and the wound, at first dressed in its own blood, was afterwards covered by lint and cerate. Considerable swelling followed, and for several days the arm was very painful. Subsequently, however, the inflammation subsided, and the wound healed well. When the man left the Hospital his elbow was stiff; but there seemed every reason to expect that his arm would prove a useful one. It was a circumstance well worthy of remark, in a case which did so unusually well as this did, that there had been everything in the man's previous habits to have induced the expectation of a different result. The man was one of those bloated, heavy-looking fellows so well known to those familiar with the employés of the London breweries. According to his own account his daily allowance of stimulant had been, of gin three or four glasses, and of porter twelve pints. He had been in the habit of eating very little, and would appear to have kept himself almost constantly in a half-stupid state. Notwithstanding this, however, he suffered remarkably little from constitutional disturbance, and had not the least delirium, although the injury sustained had been one of considerable severity.

THE LONDON HOSPITAL.

Case 12.—FRACTURE OF THE OLECRANON.—ACUTE INFLAMMATION OF THE ELBOW-JOINT.—FREE INCISIONS.—RECOVERY.

(Under the care of Mr. ADAMS.)

Thomas Harnall, aged 16, healthy and temperate, was admitted Oct. 26, 1854, four days after having received an injury to his right elbow, from a fall in the street. It appeared from his description, that the accident had, at the time, occasioned only a cut in the skin. He could use his arm, and the next day went to work as usual. Acute pain and swelling, however, supervened, and he now applied for advice with the whole elbow in a most threatening condition. He was confined to bed, and a large poultice applied. A few days after admission the presence of matter was clearly marked, and free incisions on both sides the triceps were consequently practised. The suppuration which followed was most profuse, and for some time the lad was in a state of hectic and very great debility. No erysipelas occurred, but abscesses formed above as well as in the joint, and required to be opened. On examination, about three weeks after admission, the swelling having now somewhat subsided, the olecranon, which at first had been ascertained to be in natural continuity with the shaft of the ulna, was found to be separated and drawn about half an inch upwards.

The subsequent progress of the case was one of steady improvement. On Dec. 10, the use of the rectangular splint was commenced, and the lad, although still somewhat hectic, was gaining flesh and strength. On January 12 he was allowed to leave his bed, and in the beginning of February he was discharged from the Hospital. At that time a part of the wound left by the incision was yet unhealed. There was no power of pronation, and little or none of flexion at the elbow. He was in fair health.

July 10, 1856.—The boy is now at work, his arm is fairly muscular, and he is able to use it. The elbow is, however, stiff, and there is still a small sinus open. For considerably more than a year after the accident he was not able to employ the arm. He is in good general health.

COMMENTS ON THE SERIES.

Sir Astley Cooper remarks of compound fracture of the elbow-joint: "In the most severe accident of this kind, the constitution is generally able to support the injury if it be *judiously treated*." He cites four examples of it occurring in his own practice, in three of which recovery ensued; in one death. He also narrates two cases from the practice of Mr. Macyntyre, in which the articulating extremities were excised immediately after the accident, and in both of which excellent results were obtained. In the "judicious treatment" above referred to, Sir Astley appears to include the dressing of the parts in lint dipped in blood, and strictly abstaining from poulticing.

Mr. Alcock (a), in his paper on Injuries to Joints occurring in Military Practice, states, "Very serious injury of the elbow-joint often admits of the limb being saved." Of excisions, he remarks that "they have been performed with good success in cases of disease, and *are still more applicable to injuries*." At the time he wrote, however, he was not aware of any instance "of total excision of the articulating ends of the elbow in the annals of either British or French Military Surgery."

The following Conclusions appear warranted by the facts before us:—

1. That primary amputation on account of compound fractures of the elbow ought never to be thought of unless, indeed, either the artery be torn through, or the soft parts in front as well as behind the joint hopelessly damaged.

2. That the preceding rule requires little if any modification on account of the age, health, or previous habits of the patient. In case No. 6 of our series the man was upwards of 64, and in one given by Sir Astley Cooper the patient was a gentleman of 74, and of feeble constitution; yet in both these the result was most excellent. In Case 5 the patient was a cachectic, ill-fed boy of 14. In Case 11 the subject was a brewer's drayman of most intemperate habits; and one of the most favourable of those given by Sir Astley Cooper occurred in a similar character.

3. That the ill consequences to be feared are in inverse rather than direct proportion to the amount of external injury (laceration) inflicted; those cases being most serious in which the joint is crushed with but a very small opening in the skin.

4. That in all cases, sufficiently severe to warrant it, it is far better surgery to freely enlarge the wounds behind the joint, and excise the projecting ends of the bones, than to be content with a simple reduction. Much less of suppuration, and of constitutional disturbance appears to follow cases so treated, and the chance of good motion being obtained after an excision is infinitely greater than it is when the ends of the injured bones remain (b).

5. That, in the treatment of these injuries, poultices and warm fomentations should be utterly eschewed.

6. That, when it has been decided to preserve the arm, it is the Surgeon's duty (excepting, perhaps, in case of sloughing) to persevere, in spite of discouraging circumstances afterwards. None of the patients in our list appear to have died directly from the effects of the injury; and, in the three cases which did end fatally, the event was due to a state (pyæmia) which amputation would have availed nothing to prevent. In several, on the contrary, recovery took place from a condition apparently of but little hope; and, in one or two, the patient's own obstinacy in refusing amputation saved him his limb. Buffon described the genius necessary for the successful pursuit of natural history as consisting mainly in "*une assez grande aptitude de patience*;" and, assuredly, the quality is one no less necessary to the conservative Surgeon.

JONATHAN HUTCHINSON.

(a) Medico-Chirurgical Transactions, Vol. XXIII. page 254.

(b) It may be worth a question whether, even in certain cases not usually deemed sufficiently severe to warrant it, for the reasons above-mentioned it might not be well, to enlarge the wound and excise the joint. Crushed elbows with but small external wound, undoubtedly, as a rule, do badly. The excision of joints during the acute or commencing stages of inflammation, would seem hitherto to have been regarded with suspicion, though probably with no very definite reason. In cases of slight injuries, in which at the time it had been thought best to do nothing, but which have subsequently gone wrong, it might perhaps be good practice, do *secondary* excisions, to say within the first week or two. The immediate relief afforded by free incisions under such circumstances is well known, and it would probably be increased by the removal of the bones and their ulcerating cartilages.

THE FOREIGN PRACTICE OF MEDICINE AND SURGERY.

THE ST. JOHN'S INFIRMARY (ANTIGUA).

ANEURISM OF THE FEMORAL ARTERY—PROFUSE HÆMORRHAGES—LIGATURE OF THE EXTERNAL ILIAC—DEATH—AUTOPSY.

(Under the Care of Mr R. W. JENKINS.)

[THE following narrative is from the pen of the operator, Mr. R. W. Jenkins, formerly of the London Hospital:—]

William Elliott, a black man, about 49 years of age, residing at Parham, and working as a cook in a family, suffered from elephantiasis arabum, with ulceration of the left leg to such an extent that, at his urgent request, the limb was amputated on 10th December, 1853. The limb was diseased at the usual place of amputation; but, as it was thought desirable to save the knee-joint, the operation was performed immediately below the head of the fibula. This bone became necrosed, and was removed about six weeks prior to his discharge on 5th March, 1855. The glands in the groin remained much enlarged, but did not produce much inconvenience. His health improved after his discharge, so that he was able to resume his usual employment.

On Monday, May 14, 1855, he walked to St. John's, a distance of 6½ miles, and, when returning, hæmorrhage from the left thigh came on suddenly, to such an extent that he fainted. He was brought by the police to the Infirmary with the limb bandaged roughly, but sufficiently well to prevent further hæmorrhage. On examination, a small ulcerated wound was found in the inside of the left thigh, about the junction of the upper with the middle third, over the situation of the saphena vein, caused apparently by the bursting of a small abscess. The whole thigh felt hot and indurated; there were several enlarged glands in the groin, and a small tumour resembling a gland, situated over the femoral artery, about an inch below Poupart's ligament, pulsated slightly, apparently from its proximity to the artery. Pulse 96, tongue coated, bowels rather confined. An aperient was ordered to be taken directly, and fever mixture every two hours. A compress was placed on the wound, the stump was bandaged from the knee to the groin, and elevated on a pillow.

On the 15th, 16th, 17th, and 18th the man appeared to be going on pretty well as regards his general symptoms, but the tumour over the artery gradually increased till it reached the size of a hen's egg, and the pulsation became more marked; it could not be raised from the vessel, and a little purring sensation was perceived on grasping it, but no bruit de soufflet could be heard. There were slight discharges of blood from the original wound on the 16th, 17th, and 18th.

May 19.—The patient is not so well to-day. Febrile symptoms increased. Pulse 122, jerky. Thigh more swollen and painful, and the tumour much larger; tender when touched, and pointing as though about to burst; there was rather more oozing of blood from the wound to-day than since his admission. Cold water was applied to the tumour, and a solution of nitrate of potash with tincture of digitalis was ordered to be taken every three hours.

20th.—He appears rather better. The digitalis seems to have diminished the force of the pulse, but it continues to beat 120 per minute; there has been no bleeding to-day. He was ordered to take the digitalis in smaller doses, and some calomel and opium at night.

21st.—Much the same as yesterday. Passed an indifferent night. Digitalis to be omitted.

22nd.—Much the same as regards the general symptoms. The tumour has continued to enlarge steadily and rapidly; it is now as large as an orange, extending nearly to Poupart's ligament; the pulsation has increased in the same ratio, bruit de soufflet is now heard distinctly, and, in fact, the symptoms now leave little doubt that the tumour is aneurismal. In the afternoon, hæmorrhage returned to an alarming extent, but was checked before I saw him by the nurse, who said that the blood came out in a jet, and that nearly a washhand basinful had been lost. The general symptoms were much aggravated, and the poor fellow was much enfeebled by the loss of blood. Drs. Nicholson and Edwards saw the man this afternoon, and agreed, that, notwithstanding the unpromising condition of

the general health, there was no time for delay, and that it was advisable to tie the external iliac as soon as possible.

23rd.—To-day, with the assistance of Drs. Nicholson and Edwards, I proceeded to tie the artery in the usual manner, dividing the various structures on a director. Scarcely any blood was lost. The man bore the operation well, and expressed himself relieved. Pulsation immediately ceased in the tumour. The wound was dressed in the usual manner, with a large compress firmly bandaged over the wound. The stump was raised on a pillow and covered with flannel, and a large poultice applied to the thigh over the wound. Three grains of calomel with a grain and a-half of opium were given at bedtime. Milk diet.

24th.—He has passed a restless night, but feels no pain. The knee feels cold, but is sensitive when touched. Pulse 122, small. To continue the poultice, and to take five grains of calomel with three of opium at bedtime.

25th.—Passed a good night, and feels rather easier. Tongue coated and rather dry. Bowels not open. Pulse 120, small. To take a dose of castor oil.

26th.—Passed a good night. The wound on the inside of the thigh has discharged a large quantity of fetid pus. The abscess seems to burrow for some distance around, and to communicate with the sac above. Pulse 112, weak. Tongue coated and dry. The bowels not having acted, he was ordered an enema of warm water, which produced the desired effect. He took some mutton to-day.

27th.—Much the same as yesterday. To have full diet.

28th.—The wound made at the operation was dressed to-day. It appeared healthy, and discharged a small quantity of laudable pus. The tongue continues dry. He has had an attack of diarrhœa to-day, which has weakened him a good deal. The skin feels clammy, and he has frequent twitchings of the muscles of the face and neck. Pulse 112. He was ordered to take 1½ grain of opium at bedtime, and a mixture containing compound chalk powder, aromatic spirit of ammonia, and tincture of opium for the diarrhœa. To have two glasses of wine.

29th.—Passed a good night, and appears rather stronger to-day. Twitching not so frequent. Discharge from the thigh plentiful and offensive. The cuticle over the patella is shrivelled and desquamating; this part also feels cold, and seems about to slough. Pulse 120. Tongue coated, not quite so dry. Diarrhœa checked. To continue the diet and wine, and to take three grains of opium at bedtime.

30th.—Not so well. Diarrhœa has returned slightly; the tongue presents a glazed appearance; skin clammy. The wound in the thigh looks sloughy, knee warm. Pulse 112, weak. A mixture, containing carbonate of ammonia, tincture of opium, and camphor mixture, was prescribed, and he was ordered some brandy.

31st.—Not so well. There was a very abundant discharge of offensive pus last night and this morning from the sac, which now communicates freely with the abscess. Vesication has not extended about the knee. The wound of the abdomen gapes, and shows signs of defective vitality. He passed a restless night, but says that he suffers no pain. Pulse 120, very weak. Tongue glazed. Diarrhœa continues. To go on with the stimulant mixture, to take three grains of opium at night, and to apply chloride of lime lotion in the poultices. Brandy *ad libitum*.

June 1.—Much the same. Discharge profuse and offensive. Tongue dry and glazed. Diarrhœa continues. Pulse 120, very weak. He slept pretty well and feels no pain. Continue as directed yesterday.

2nd.—Much the same as yesterday, but weaker.

3rd and 4th.—He still gets weaker, and is evidently sinking from exhaustion. Wound gaping. Integuments over the knee quite without vitality. Tongue glazed and dry.

5th.—He died this morning at 11 a.m., on the thirteenth day after the operation.

Examination of the body seven hours after death.—The external iliac artery on the left side was tied about an inch and a quarter above the giving off of the epigastric. The ligature had cut through about three-fourths of the circumference of the artery. Above the ligature to the bifurcation of the common iliac, the artery was filled with a firm plug of lymph mixed with a small proportion of the red particles of the blood, and below it was closed in the same way to the point where the epigastric was given off. This artery and the circumflex ilii were somewhat enlarged. The femoral artery above the sac was blocked up for about half an inch only, and when traced down was found to terminate abruptly in a sac of roughly spherical shape, the size of a large orange, the coats of the artery being obliterated at its junction with the sac, apparently from distension and by ulceration. The sac contained a clot surrounded by sanguinolent fetid pus, and communicated freely with the external wound in the thigh. The surrounding muscles were pale and sodden, from the burrowing of the matter, and so disintegrated was the texture of most of the tissues in the neighbourhood of the sac that they tore with the slightest touch. The artery appeared to be continuous with the sac below, and in that part was blocked up for about an inch with a firm clot, as was also the profunda as far as the condition of the parts admitted of a satisfactory examination. No pus was found in any of the veins.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No 115.—Cure of Cancer by Compressed Sponge.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—In the *New York Medical Journal* for May, there is an account of the successful treatment of cancer of the breast by a method not practised in this country; but, unfortunately, this method is not described, probably from its being well known to American Surgeons. After the tumour had been much reduced in size, and the patient's general health had been brought into a much better condition by the application of intense cold, it is mentioned that the cure was completed by pressure made by means of compressed sponge. Having a case at present under my care in which the use of the knife is unadvisable, I should be happy to try some other plan of good promise; and send this communication with the hope that it may meet the eye of some one conversant with the American practice referred to, and willing to give information on the subject. I should wish to know particularly how the sponge is applied, and how it is compressed or prepared.

London, July 5. I am, &c. Chirurgus.

No. 116.—Fetid Perspiration.

Sir,—For more than two months I have had under my care a boy, aged 15 or 16 years, suffering from so profuse and morbid a secretion of perspiration in the feet that his presence in a room is not tolerable. The treatment for the first month consisted in strict attention to general health; iodide of potassium and sarsaparilla, with occasional purgatives; cold bath every morning, and salt water foot-bath at night. Since then the internal use of tannin has been tried, with the local use of solution of alum, chloride of lime, and nitrate of silver, but with little or no benefit. If any of your correspondents can give me any suggestions as to the treatment, they will much oblige, Yours, &c. B.

Medical Times & Gazette.

SATURDAY, JULY 12.

THE CASE OF MR. DYCE SOMBRE.

The protracted proceedings in the case of the disputed Will of the late Mr. Dyce Sombre having at last been terminated, it will not be unprofitable to cast a retrospective glance at some of the circumstances connected with the history of this eccentric individual, whose vagaries have excited so much public attention. The case is interesting not only in a psychological point of view, but also in its bearings upon the reputation of our Profession.

We must, in the first place, express our very high admiration of the masterly judgment delivered last week by Dr.

Lushington; and we conceive that in this elaborate display of forensic reasoning, the learned Judge has added new lustre to the British Bench.

The question of the sanity or insanity of Mr. Dyce Sombre was, no doubt, involved in a certain degree of difficulty from his Oriental origin and habits, and from his evident proneness to indulge in the grossest sensuality. It needs little argument to prove that an Oriental despot may be of sound mind, although he may commit acts of tyranny, and be addicted to habits of vice which would shock an European. Now it is proved that Mr. Dyce Sombre was placed, in India, in possession of despotic power, and, in the case of women, was entirely a Mohamedan in his notions. But it was also proved that, while in India, he mixed with good European society, both male and female, was taught the English language, and was, of course, quite conversant with English habits and modes of living. It appears, moreover, that, when in society, he behaved with propriety and decorum.

By what train of circumstances this unfortunate person became the husband of a lady whose ancestry has shed the greatest lustre upon the British peerage, it is not for us to inquire, nor if we desired to enter into the investigation, are the materials abundant for doing so; it is sufficient to observe that Mr. Dyce Sombre married the daughter of Earl St. Vincent, and from this unhappy connexion have sprung up those protracted investigations which have amused the idle, and disgusted the thoughtful reader. Whether Mr. Dyce Sombre was, before his marriage, a vicious or an insane man, does not clearly appear; but it is certain that after that event, his conduct became so extravagant as to render restraint absolutely necessary for Mrs. Dyce Sombre's protection; and even after his release from absolute confinement, he omitted no opportunity of blackening the fame of his wife by the most odious charges.

To suppose that any of these charges had the slightest foundation, would be to harbour in one's mind an atrocious falsehood; and to utter one's belief in any of them, would justly subject the slanderer to the penalties of the law; and we must, therefore, conclude that the whole of the foul accusations against Mrs. Dyce Sombre, on the part of her husband, were the mere ravings of a morbid imagination, and that he who could invent such accusations, as shown by the learned Judge, must necessarily be insane. Here we cannot forbear from quoting the passage in the judgment of Dr. Lushington, which seems appropriately to draw the line between those feelings of suspicion and jealousy which might be the results of Oriental education and habits, and the invention of positive falsehoods against the character of a virtuous lady.

"There are limits," says Dr. Lushington, "within which this principle of solution, from peculiarity of character, must be circumscribed. It may be conceded that, in Mr. Dyce Sombre's case, circumstances, very slight in themselves, and, ordinarily, wholly inadequate, might create, and in a violent degree, jealousy and suspicion; but the invention of facts, *wholly without foundation*, the belief of circumstances, *wholly improbable* (if not absolutely impossible), even in a person of such a character, never can be accounted for by similar reasoning."

In order that there may be no mistake between mere eccentricities of character and the insane invention of falsehood, it is necessary to mention that Mr. Dyce Sombre declared, on several occasions, that poisons were put into his food by various persons, in order to produce impotence; and he also stated, that Mrs. Dyce Sombre had had intercourse with her father, who was between 70 and 80 years of age, in the open park, and that the father and daughter had confessed the fact.

It is well known that a Commission of Lunacy was issued against Mr. Dyce Sombre; that he managed to escape from *surveillance* in this country, and proceeded to various places on the Continent; that he obtained the evidence of several Physicians to his sanity; that he petitioned the Court of Chancery to supersede the Commission, which successive Lords Chancellors refused to do; that he made a will, while the Commission was still in force, and died soon afterwards, having indulged in the most unbridled debauchery in various Continental towns. In his various struggles to escape from Chancery, he exhibited abundant evidence of the cunning which lunatics are known to evince when they wish to evade the inquiries of those who are testing their psychological condition; but, nevertheless, as was acutely remarked by Dr. Lushington, he did not carry on the deception with sufficient skill to delude the practised examiners who were appointed to question him. He sometimes refused to answer questions at all, and he evaded others; and, when required to avow his full conviction of his wife's chastity, he made such replies as to convince the interrogators that he was merely attempting to conceal his true sentiments, while the morbid idea remained, in reality, as firmly fixed as ever in his mind.

It now remains for us to offer a few observations upon the bearings of this remarkable case upon the reputation of our Profession. We have already remarked, when treating of the case of William Palmer, upon the unfortunate position in which some of our body have been placed by assuming the part of advocates instead of witnesses, and we have lamented the severity with which their conduct has been treated by the general public. We have before expressed our desire that the Medical witnesses in judicial proceedings should be perfectly impartial, and should prefer the interests of truth to those of either of the contending parties in a legal case; and we have seen, with very great regret, men of great Medical reputation pitted against one another, like scientific gladiators, each seemingly intent upon contesting the conclusions, and injuring the reputation, of his opponent. It is the duty of lawyers, of course, to take opposite sides in judicial proceedings; but the Medical witness is an *amicus curiæ*, brought upon the scene, not to espouse the cause of one party or the other, but to explain the scientific facts on which an argument may be raised or a decision may be formed.

In the case of William Palmer, it will be recollected, that Lord Campbell animadverted rather strongly upon this tendency, on the part of the Medical Profession, to make themselves advocates instead of witnesses; and Dr. Lushington, though he did not allude to any such feeling on the part of the distinguished Physicians who testified to the sanity of Mr. Dyce Sombre, yet spoke in a somewhat disparaging manner of some of the evidence given to establish that point. Dr. Lushington mildly intimates his opinion, that some of the Physicians who certified to Mr. Dyce Sombre's sanity must have been ignorant of the facts of the case; and he especially adverts to one who considered that it was no proof of insanity to entertain a belief that Mrs. Dyce Sombre had had connexion with her own father—that nobleman being, as we before remarked, between 70 and 80 years of age—and that father and daughter had confessed to the intercourse. Another Physician of eminence had testified to the sanity of Mr. Dyce Sombre at a period when that person was uttering the most abominable accusations against his wife's chastity, both before and after her marriage: the Physician being, no doubt, ignorant of his having made those charges.

We cannot too emphatically recommend the members of our Profession—and the more eminent they are the more careful should they be—to examine *all* the facts in a case of supposed insanity before giving a certificate or an opinion. In the case before us, certificates of Mr. Dyce Sombre's sanity were signed by various Continental Physicians, although the certificates themselves, drawn up by Mr. Dyce Sombre's own

hand, bore evident marks of delusion, for these certificates set forth that he was confined, under pretext of being insane, by the intrigues of his enemies, and that he was declared out of his mind by a bribed commission. Again, some English Physicians of eminence declared in a report that Mr. Dyce Sombre was of sound mind at a particular period, which was not improbable, because, as we have before observed, lunatics are cunning enough to conceal their delusions for a considerable time; but, in the words of Dr. Lushington, "was the inquiry conducted with due reference to all antecedent circumstances?" and were due pains taken to ascertain whether all the morbid delusions had really passed away? Dr. Lushington reviews in order the opinions of all the Medical men who testified to Mr. Dyce Sombre's sanity, and we cannot help expressing our opinion that the Judge has satisfactorily proved that several of them were ignorant of circumstances which ought to have had great weight in forming an opinion.

We have now hinted at, rather than described, what we conceive to be a growing evil in our Profession, namely, the occasional assumption of the duties of the advocate, rather than constant devotion to the sacred interests of truth and science; and we are unwilling to expatiate more upon the subject at present, in the hope that we may be henceforth spared from exhibitions which bring odium upon Medical evidence, and which lower our character in the opinion of society.

THE WEEK.

An inquest has lately been held at Bolton upon a man who is supposed to have been poisoned by tartar emetic administered to him by his wife, against whom the jury have returned a verdict of Wilful Murder. From the evidence adduced at the inquest, it appears that it is customary with the druggists of Bolton to keep powders composed of four or five grains of tartar emetic and fifteen of cream of tartar, which compound is sold to married women for the purpose of giving to their husbands, what is called "quietness." It is intended to make them sick when they have been drinking, and is commonly asked for by wives who have intemperate husbands. In the present case it did not appear that the husband, although addicted to drink, had the powder given to him in order to cure him of that vice, for the drug was administered to him when he was sober; and further suspicion was thrown upon the case by the existence of a policy of insurance upon the life of the husband payable to the wife at his death, and by the drunken habits of the wife herself. Without entering at present into the merits of this case, we cannot too strongly express our condemnation of the system which is shown to prevail in Bolton, of allowing druggists to sell a potent and often poisonous drug to women, whose avowed object is to administer it to their husbands, and who may, by its criminal use, be brought into the category of murderers.

Considerable dissatisfaction has been expressed by the Acting Assistant-Surgeons of the Army, at the intention which is expressed, on the part of the authorities, to dismiss that useful class of officers with a gratuity of two months' pay. It is represented that the Civil Surgeons in the East, the Medical officers of the Turkish Contingent, and even the Militia Surgeons, are allowed a year's pay, and that there exists no reason why the Acting-Assistant Surgeons, who volunteered their services at a time of danger, should be treated with such illiberality as is now contemplated. We hope that the subject will be reconsidered by the War Department.

The Graduates of the University of St. Andrew's are bestirring themselves on the subject of the non-recognition of their University in the clause of the new Bill, referring to the constitution of the examining bodies. A small working Committee of Graduates has already been formed to watch the progress of events, and to urge on the other Graduates the importance of sustaining the honour and reputation of their alma mater. Dr. Richardson is, *pro tem.*, the Secretary of the Committee. There can be no doubt that if the Graduates are of one mind and prepare themselves to urge their very just demands, they will gain their point; and as the Bill is now postponed till next session, and will possibly be submitted to further modifications, they have ample time to form a powerful organization. The Graduates of St. Andrew's are not only numerous as a body, but have among them many men of great industry and vigour. The *esprit de corps* only is now required.

The evacuation of the Crimea is going on at a rapid rate, and at the moment we are writing there are probably no British regiments left at the late seat of war. A great quantity of stores, however, still remains although many articles have been sold, to save the trouble and expense of bringing them back. When an accurate return is made of the British losses by death in the Crimea, it will be found by no means so great as is generally supposed, and it is, we believe, much less than we have experienced in former wars of similar magnitude. The losses by disease have been, as may be anticipated, much greater than by the sword and fire of the enemy. The French losses, as we have shown, have been much greater than our own, both absolutely and proportionally; but the losses of the Russians have been upon a most stupendous scale, for we learn that no less than 300,000 men have perished on the soil of the Crimea. Such are the horrors of a war undertaken to gratify the insane ambition of a despot, and such the wanton sacrifice of human life which his madness has entailed upon his own people, only too ready to obey the call of their semi-barbarous autocrat, whose death in the midst of his career was one of the striking events in the late war.

It is with considerable regret that we announce the abandonment, for the present Session, of the Bill for Medical Reform brought in under the auspices of the Government. It is very probable that the Vaccination Bill will also be abandoned, and a triumph thus be afforded to the enemies of one of the most beneficent discoveries ever promulgated. On the Public Health Bill the Ministers have suffered a positive defeat, and a strong feeling of opposition has been manifested against the Board of Health altogether. The ignorance and the folly displayed in the House of Commons upon matters relating to Public Health are perfectly lamentable, and almost lead us to despair of our ever seeing Sanitary Legislation placed upon a secure foundation. The laborious results of learning and experience on the part of scientific men weigh as nothing in the balance against the absurd prejudices in favour of existing evils; and what with the incompetence and arrogance of local Boards, and what with the absence of Hygienic knowledge in the Legislature, it is uphill work, indeed, for the conscientious Practitioner of Medicine to perform his onerous, and often thankless, duties with satisfaction to himself, or with justice to his fellow-creatures.

We are happy to observe that a considerable increase of the Medical and Surgical Staff is likely to be made to King's College Hospital. Two Assistant-Surgeons and two Assistant-Physicians are to be added to the existing Medical Officers, and the elections are taking place while we are going to press. This example, on the part of a small Hospital like that of King's College, will not, we hope, be lost upon the authorities of the larger Metropolitan Hospitals, in which the Staff, both of Physicians and Surgeons, is almost universally too limited.

REVIEWS.

Clinical Remarks on Disease in India. By CHARLES MOREHEAD, M.D., Principal of Grant Medical College, etc. 2 vols. London. 1856.

THE circumstances under which these researches have been published are very peculiar, and highly honourable both to the Government of India and to Dr. Morehead. It has long been felt, that the graduates and students of Indian Medical Colleges were without any text-book on Medical Practice as now generally pursued in India. The Court of Directors of the East India Company, on this want being represented to them, and at the suggestion of Dr. McLennan, the Physician-General of the Bombay Army, entrusted to Dr. Morehead the task of supplying this deficiency, and for this purpose granted him an extended furlough from his duties in Bombay. We do not think that a better selection could have been made than of Dr. Morehead, whether we regard his antecedent services in the Indian army and Hospitals, or whether we confine our attention to the very creditable manner in which these volumes are written, and the intrinsic evidence they present of long and varied Indian experience, accurate observation, and sound judgment. The work is no compilation. It embodies, in a connected form, the vast practical knowledge of the author. Its value is enhanced by carefully prepared summaries of 556 cases illustrative of the symptomatology and pathology of disease.

Dr. Morehead, at the outset of his work, draws the attention of his readers to the importance of regarding asthenic and cachectic conditions of constitution in the treatment of disease; and points out the influence of long-continued elevation of temperature and malaria as special causes of these conditions in tropical climates. His views upon the former of these are rational. "One effect of elevated temperature on the animal system is less necessity for animal heat; hence less demand for food, diminished metamorphosis of tissue, and decreased excretion. That this is true, becomes manifested in the asthenic condition of the residents in warm climates, compared with those in cold. The European soldier or sailor lately arrived in India, does not readily appreciate or adapt himself to the alterations in habits of life necessary to the maintenance of health under these circumstances of a warmer climate. The excesses, therefore, which in the cold climate might be unattended with disorder, are, under the increased predisposition consequent on the influence of elevated temperature, followed by derangement. Bilious diarrhœa or cholera is, in these circumstances, very apt to occur, and the theory usually conceived of this event is, in all probability, correct, viz., that defective elimination of hydrocarbon by the lungs, under diminished heat-generation, is liable to throw on the liver the burden of the elimination of these elements where they are present in excess in the system. But it by no means follows from this that, where there is the just relation between food-supply and excretion which is implied in the habits of every prudent resident in a warm climate, there obtains more of action of the liver vicariously of the lung in the one climate than in the other. . . . . The evidence that the biliary excretion is not increased, rests on the fact that, in the natives of India and in Europeans whose habits of life have become adapted to the climate, derangement of this kind is very rarely observed."—P. 4.

There are few parts of these volumes which will interest English readers more than the sections upon cholera. Upon some of the questions relating to this pestilence they will, doubtless, look for instruction to our author. We will endeavour to gratify them by a few extracts.

"The greater prevalence of cholera in the warmer months of the year in European countries, has been supposed to depend on elevated temperature favouring an impure state of the atmosphere by increasing decomposition. But as the heat of an Indian climate must always be sufficient to cause atmospheric impurity in this manner, we may infer, if the view stated in respect to European countries be correct, that cholera in India will not show a preference for particular seasons. My own observations certainly lead me to this latter conclusion."—P. 364. Dr. Morehead believes that the opposite opinion is suggested by partial data.

Upon the cause of cholera he throws no additional light. Nor does he consider the spread of the disease to be dependent in any but, perhaps, a very limited degree upon contagion.

In his section upon the treatment of cholera he dwells upon the importance of subjecting the patient to the action of remedies in the earliest stage of the disease.

"Extensive clinical acquaintance with epidemic cholera leads the unbiassed mind to the conclusion, that there are degrees and stages of cholera as of other zymotic diseases which are beyond the direct resources of Medical art; and that in the management of these the Physician best consults the interests of humanity and the character of his Profession, when he abstains from rash and restless empiricism, and is satisfied with placing the patient in those circumstances most favourable for the revival of vital action, under the influence of their ordinary stimuli;—that, on the other hand, there are degrees and stages of the disease which are frequently readily controlled by medicine, and that these demand careful study and attention."—(P. 403.)

The premonitory diarrhœa is more common in European countries than in India. He considers opium the most useful remedy. "One or two grains of solid opium, or from twenty to forty minims of the tincture with peppermint and two or three drachms of brandy may be given." If the tongue be coated he advises ten grains of calomel to be conjoined. "In cases where the diarrhœa has been neglected and allowed to continue for some time unchecked, in which the discharges are becoming very watery, and the pulse and countenance beginning to change, then attention to such adjuvants as confinement to bed in the recumbent posture, and warmth by suitable clothing to the surface of the body, must be at once enforced; while at the same time the opiate remedies are given and repeated, combined with a larger proportion of alcoholic or ammoniated stimulant." If these means fail, and before true cholera discharges are established, he recommends the use of astringents alone, or with small doses of opium. His own practice has been to give the acetate of lead; but he adds his conviction of its utter powerlessness to restrain the serous discharge when collapse has fully set in. As to the stage of collapse, Dr. Morehead writes as follows:—

"We shall best manage this stage of the disease by directing our attention to those ordinary stimuli necessary to the maintenance of vital actions in health and to their restoration when depressed. The patient should be placed in a well-ventilated room; the surface of the body should be wiped from time to time, lightly covered with two or three blankets, over which warm bricks, or other similar means of imparting external heat, may be applied. Water should be given frequently in small quantities, according to the desire of the patient, if he is alert, or it should be offered to him if he is sluggish or apathetic. It has been my practice, in addition to these means, to give a drachm of aromatic spirit of ammonia every hour, or second hour, and a little wine with thin sago every third hour. It is, I think, well to assume the possibility of some degree of absorption, and to regard it to this extent. A recumbent position should also be strictly observed. The cramp and restlessness, if distressing, may be palliated by gentle rubbing and shampooing. The proportion of recoveries from the stage of complete or great collapse is considerable, certainly not less than 40 per cent. But I believe that, if, in its management, the attention of the Practitioner were confined to carefully carrying out the simple indications just explained, and not distracted with the vain hope of benefit from empirical experiments, that the mortality in this stage would be still further reduced. Vol. I., page 408.

The extensive experience of the author gives weight to his opinion in respect of the etiological relation believed by Dr. Budd and others to subsist between hepatic abscess, and ulceration of the intestinal mucous membrane. While admitting as sufficiently probable the occasional occurrence of hepatic abscess in the manner supposed, he regards the pyæmic theory, as a general proposition, to be at variance with the results of clinical research in India. Primary uncomplicated hepatitis is not an unusual disease in India; and he has long suspected that mercurial and other irritants, continued for too long a time in the treatment of hepatic inflammation, have excited in many cases intestinal inflammation, and consequent ulceration. The conclusion he arrives at, from his own observations, is, "that hepatic abscess, occurring in the course of dysentery, is for the most part simply an instance of a secondary inflammation, arising in an organ predisposed by previous disease, or other influences, and is not caused by

pyæmia. In respect of those cases in which dysentery and hepatitis appear to co-exist from the commencement, I would merely observe that, when we recollect how much there is in common in the causes of these affections, the wonder is that this original co-existence is not very common, instead of being rare, as it really is." Vol. II., page 14.

We have no doubt that, for many years to come, Dr. Morehead's volume will be a standard text-book for Students of Indian Medicine, but we regret that the high price at which it is sold will put it out of the reach of many who would otherwise be anxious to possess it.

Shaw's Medical Remembrancer; or, Book of Emergencies. Fourth Edition. Revised, etc., by JONATHAN HUTCHINSON, Surgeon to the Metropolitan Free Hospital, etc., etc. London.

WHEN a book arrives at its fourth edition, it may generally be considered to be out of the critic's hands. The very useful little work before us, however, not only possesses this evidence of the approval of the Profession, but claims our notice on account of the large additions and improvements which it has received. The number of subjects now mentioned in it is more than double that of previous editions, while, by the adoption of a very condensed style, and the rigid exclusion of all extraneous matter, the bulk of the volume is not materially increased. Reference is greatly facilitated, and much space saved, by the alphabetical arrangement of subjects, instead of that in chapters, as heretofore. To give our readers an idea of its present scope, we may enumerate the following, which are the headings of the subjects treated under the letter A:—Abdomen, Injuries to—Abscess—Accidents—Aconitine—Alcohol—Ammonia—Animal Charcoal—Antimony—Apoplexy—Arsenic—Artificial Respiration—Asphyxia—Atropine. The information given under each of these, although necessarily very brief, is explicit; and it appears to us just of the kind likely to be wanted on an emergency. Mr. Hutchinson has fulfilled his task carefully and well, and has not only brought the book up to the present standard of knowledge, but has interspersed not a few suggestions which strike us as both original and of much practical value. No Medical pupil should be without the work, and we can indeed strongly recommend it as a pocket companion to all Practitioners who occupy positions which render them liable at any moment to be called upon to act in some strange emergency, and are sensible of possessing memories not over-retentive as to matters which possibly may claim the attention but once or twice in a lifetime.

The Medical Case Register. London. 1856.

THIS book, prepared, as Mr. Penny states, at the wish of several gentlemen holding Hospital appointments, appears well calculated for the purposes it is intended to serve. No attempt has been made at the needless multiplication of headings, and the columns in which it is arranged are such as must greatly facilitate case-taking. The paper and general getting-up of the book are excellent, and it is provided with a good index. From some months' trial of it in attending out-patients, we can strongly recommend it, either for hospital or private practice, as the most convenient note-book with which we are acquainted.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON AMPUTATION AT THE KNEE-JOINT.

By Dr. MARKOE.

Dr. Markoe has advocated this operation in preference to amputation of the thigh since 1841, when he had the opportunity of observing the satisfactory character of the stump, several years posterior to the performance of the amputation. The present paper is chiefly based upon observations made at the New York Hospital, two of the cases having been under his own immediate care, while he has watched the progress of most of the fourteen others, which have occurred in American practice. The following is an epitome of the conclusions he arrives at:—

1. The grand advantage of this operation is the useful character of the stump that results, strongly contrasting with the uselessness of the stump left after amputation of the thigh, and enabling the patients to wear an artificial limb with comfort and advantage. 2. The seat of operation is farther removed from the trunk, and the constitutional shock is probably therefore less. 3. The section at the knee-joint is less extensive than that of amputation higher up, no parts being divided but the integuments, and, although a large surface is exposed, a great portion of it, the femoral cartilage, is a healthy not a wounded surface. 4. No muscular interspaces are exposed by the knife, excepting those of the heads of the gastrocnemius, which are of small extent and depth. There is, therefore, less chance of any inflammation that may attack the stump travelling upwards, and forming burrowing abscesses, amidst the soft areolar tissue filling such interspaces. The section of tendons that takes place in this operation, is rarely followed by any other than reparative inflammation. 5. Fewer ligatures are required, and the orifices of the divided arteries lie close together in the centre of the popliteal space. By following Blandin's procedure, therefore, of "making a small opening through the integument, of which alone the posterior flap consists, we are enabled to bring all the threads out of the stump by a short and direct route, in the most depending position; and thus the space between the flaps and condyles, where we are most anxious to procure adhesive inflammation, is not fretted into suppuration by the presence of the ligatures crossing it, to be brought out between the lips of the wound." 6. The muscular attachments concerned in the movements of the limb are not divided. Those which are severed are merely for the movements of the leg, all the muscles proper to the thigh being left untouched. The result is, that the patient is able to move the stump with astonishing freedom and facility. 7. Another advantage directly resulting from this is, that there is no muscular retraction after the healing of the wound. "My own experience would lead me to think that, in all cases where divided muscles are united over the end of a bone, as in flap amputation through the thigh, the ultimate result is a complete disappearance by combined absorption and retraction of the muscular tissue, which, on the first healing of the wound, gave a thick and promising covering to the end of the bone. If I be not mistaken, it will be found, if the limbs be examined a year after they are healed, that the conical stump above described is the rule and not the exception, and that in four cases out of five, nothing but cicatricial tissue covers and protects the end of the bone. In the stump left by the exarticulation of the knee we have, it is true, nothing but integument on the face of the stump, but that integument is applied over a large, smooth, natural surface, well adapted to receive and sustain pressure, while the cicatrix, if the operation be properly performed, is thrown backwards in such a manner as to be entirely protected from pressure, in the deep fossa between the projection of the condyles." 8. In this operation the bone is uninjured, while in the other it is divided with a degree of violence, the effects of which are not always appreciated. "The effects of this violence, both upon the bone and its envelopes, and of the exposure of the cavity of the medullary membrane to the action of air and pus, are seen in several of the accidents which occur after amputation, some of which are merely of sufficient gravity to annoy the patient, and prolong the period of his cure; while others are of such danger and severity as materially to endanger life." Among the accidents that may occur are the exfoliation of a ring of the injured bone, and the formation of tubular sequestra. The production of the latter the author regards as due to the division of the nutritious arteries of the bone either by the saw or the catlin (a). The supply of blood to the medullary membrane thus cut off is too slowly supplied by anastomosis, and the bone dies. Phlebitis is another destructive consequence of such violence, but is of much rarer occurrence in the well-ventilated Hospitals of the United States than in Europe.

In reply to the objections which have been urged against the operation, on the score of exposing so large a surface, Dr. Markoe replies, that experience has shown that violent inflammation and suppuration are rare, in comparison with their production in ordinary wounds of this joint. The danger

(a) For the purpose of ascertaining the usual point of entrance of the nutritious artery into the bone, Dr. Morkoe examined 45 femora. In 23, the foramen was placed at about the junction of the middle and upper third, and in 22, at or near the centre of the bone. In several it was double.

of wounds of this part arises (1) from the extent of the synovial membrane; (2) the constant motion of the inflamed surfaces on one another, and (3) the closed condition of the inflamed parts leading to tension. The section of the joint diminishes the first of these sources of danger, and entirely obviates the two last.

In drawing the comparison of the results of this operation and that of amputation of the thigh, the author states that, according to Dr. Stephen Smith's *résume* of cases occurring in European practice, of 28 cases of amputation at the knee, 12 died, and 16 recovered. There have been 18 American cases, with 13 recoveries, and 5 deaths; making in all 46 cases, and 17 deaths. The proportion of deaths in European practice has been, therefore, 43, in American 28, and in the two together, 37 per cent. Of the 987 cases of amputation of the thigh, collected by Phillips, 435 died; and in 68 American cases, collected by Dr. Markoe, there were 29 deaths; being an average mortality of about 43½ per cent., and making a difference of 6½ per cent. in favour of amputation at the knee-joint.

"Of the different modes which have been proposed of performing the operation, I give a very decided preference to that by the long anterior and short posterior flap. This has the advantage of throwing the wound on the most depending aspect of the stump, allowing easy exit to the discharges; and it, moreover, brings the cicatrix so far back between the condyles, that it is not exposed to pressure. By cutting short the gastrocnemius muscles, it diminishes the number, and concentrates the situation of the ligatures, so that they can be brought through the posterior flap directly, without traversing the face of the stump. It will, however, often happen that the mode of operation will be determined by the condition of the integuments; and it is, therefore, fortunate that the success or failure of the case does not essentially depend upon the particular method adopted. In all cases it must be borne in mind that a great deal more flap is required to cover the ends of the condyles, than to cover a bone sawed through its shaft; and the most common mistake in performing the operation has been the not making the allowance for this circumstance, and, consequently, cutting the flaps too short."—*New York Journal of Medicine*, Vol. XVI. pp. 19—46.

SINGULAR CASE OF VICARIOUS MENSTRUATION.

By Dr. BORING.

Dr. Boring, Professor of Obstetrics in the Atlanta Medical College, relates the following curious case:—A negro slave, about 35 years of age, and of good constitution and health, began menstruating at 15, and continued doing so until about three years since. When about 27 years of age an ulcer formed on the foot, and, extending to the leg, became permanently established there. About three years since, the catamenial discharge began manifestly to decline, and continued to do so until it ceased altogether. At the approach of the next period, she states that she observed a slow oozing of blood from the ulcer, which continued for the usual time of the menstrual period, and then ceased. During subsequent periods the same discharge sometimes occurred, while at others, instead, small sacs of blood formed contiguous to the ulcer, and were obliged to be opened, and the blood discharged, before relief could be obtained.

In June, 1855, the ulceration had so extended that amputation of the limb was performed; and since then, at each monthly period, sacs, such as described above, have formed around the stump, and required to be lanced for the relief of the patient. "I have seen these sacs, and, in fact, opened them, and can entertain no doubt as to their true nature. So uniform are these singular occurrences in their periodic character, as to have induced this woman to keep a lancet for the purpose, and thus surgically to perform the work of menstruation. It should be observed, that she continues without any vaginal discharge, and that the determination of blood to the stump of the amputated limb, together with the formation of these sacs of blood, occur periodically, and observe strictly the menstrual periods as to the time of their recurrence and duration."—*New York Journal of Medicine*, Vol. XVI., p. 132.

ON THE EFFECTS OF LEAD ON THE HEART.

(By Dr. CORSON.)

Dr. Corson prefaces his paper with some remarks upon the cardiac impulse:—

"Theorize as much as we may, we must admit that its variations are important signs of disease. With *enlarged dull space*, as we know, a broad heaving impulse of the heart means organic hypertrophy, and weak, wide, flapping dilatation; while, *without extra dullness*, strong bounding denotes mere congestion of the organ; smart rapping, functional irritation; and soft tapping, cardiac debility. And these lessons from the heart not only aid us in diagnosis, but in treatment. When we remember that, in apparent death from catalepsy, electricity, or drowning, its faintest beat is the last sign of life, and calls for the most powerful restoratives; and that, as Dr. Stokes has shown, the weakness or absence of its impulse or first sound is the true test for wine in typhus fever; and add to these the facts we shall presently state to prove that a faint cardiac impulse, with purple gums, promptly suggests lead poisoning and the use of the iodide of potassium and strychnia, we shall come to regard the action of the heart as no mean guide in the administration of remedies."

During his investigation of the subject, the author some time since determined to examine the condition of the heart promiscuously in all forms of disease, as met with at a large Dispensary. He soon found that house painters and others, with either paralysis or great muscular debility, from lead-poisoning, had uniformly a more or less weakened impulse of the heart, and, generally, on going upstairs, they complained of faintness or cardiac distress; while in some there was fear of sudden death, nocturnal syncope, and other symptoms commonly met with in organic disease of the heart. In the earlier stages of lead-poisoning, when the colic only exists, these symptoms seem to be absent. He relates ten cases, noting the condition of the heart, the existence of other symptoms of lead-poisoning, and the results of the treatment employed; and the following are the conclusions he arrives at:—

"1. That, allowing a due excess of force to carry on the embarrassed circulation in organic affections of the heart, it appears that certain symptoms in slow poisoning from lead, as well as in cardiac disease proper, typhus fever, and apparent death from catalepsy or other causes, all tend to prove that, as a rule, the *impulse* may be termed the *pulse of the heart;* and that its more careful study than heretofore may aid us in the general diagnosis and treatment of disease. 2. That the symptoms of weakening of the heart in lead-poisoning are confined to cases of *partial paralysis* or *general muscular debility*, accompanied usually by the purple streak of the gums, indigestion, constipation, pains in the head, muscles, or joints, and sometimes by lead jaundice; and that, commencing and emphasizing with the most frequent, these heart symptoms from lead are: *weakened* or *soft-tapping impulse; faintness on unusual exertion;* feeble and generally slow pulse; palpitation; cardiac uneasiness; and to these are occasionally added, great despondency or morbid fear of death; suspicions of organic disease of the heart; fainting-fits, nightmare, or troubled dreams. 3. That these depressing heart-symptoms are absent in the earlier and more acute stage of lead-poisoning known as lead-colic, when, on the contrary, the stimulus of pain generally renders the impulse of the heart, and the pulse at the wrist, more firm than natural. 4. That skill in the detection of minute variations in the impulse of the heart naturally requires a little careful attention and practice. 5. That these debilitating effects of lead most commonly occur in hearts previously sound, but they sometimes complicate existing organic cardiac disease from rheumatism or other causes. 6. That the agencies or causes of lead-poisoning are very numerous and often obscure; and that slighter cases, supposed to be ordinary dyspepsia, constipation, debility, or bilious colic, are frequently undetected. (The author observes that, during his investigations, he has frequently had occasion to verify this fact, which is one of great interest to the Profession and the public in cities watered by lead pipes.) 7. That the above tests of the immediate influence of lead on the heart in disease are further corroborated by experiments upon animals; showing that, more mildly and more slowly, lead, like digitalis, oil of tobacco, upas antiar, the woorara, and some other poisons, tends specially to paralyze the central organ of circulation, and, like these, ultimately to produce what Bichat termed 'death by the heart.' 8. That the remedies for the paralyzing influence of lead may be divided into two classes—disinfectants, such as iodide of potassium, and sulphur; and anti-paralytics, such as strychnia and electricity; that the best treatment combines these two elements; and that, on the whole, the most convenient and efficacious are free doses of the iodide of potassium and minute proportions of strychnia or nux vo-

mica. 9. That the above conclusions are founded mainly on the evidence of ten cases, principally among the badly-nourished and improvident poor resorting to public institutions; and they may possibly be somewhat modified in future by more extended observations in private and more favourable practice."

New York Journal of Medicine, XVI., pp. 234—254.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

Paris, June 30, 1856.

Many French and German Physicians are now engaged in researches upon the relations between the quantity of ozone in the atmosphere, and the number of cases of certain diseases. Whatever may be found in the future as to these relations, the results arrived at until lately seem to be of little importance, and some of them seem to be in contradiction one with another. For instance, M. Wolf writes to the Secretary of the Académie des Sciences that during an epidemic of dysentery, which was the cause of many deaths in August and September, 1855, he found that the quantity of ozone was greater than usual; while on another side, Mr. Bérigny presents a paper to the same Academy, in which he states that in the barracks at St. Cloud, the number of soldiers that have been attacked with various diseases has been greater in the rooms where the quantity of ozone was less. It is true that in this case we are not told what were these diseases; but if we are to admit that the quantity of ozone has something to do with dysentery and other diseases, we must admit that while ozone is favourable to the production of dysentery, it is, on the contrary, unfavourable to the production of some other diseases. We should not have taken notice of these communications to the Academy, had we not known that M. Wolf and M. Bérigny are very good observers.

M. Baudens, Surgeon-in-chief of the French army in the East, has written a letter to the President of the Académie des Sciences, on the Typhus of the Crimea. He examines the differences between this typhus and the typhoid fever as it exists in France, and he concludes that these two diseases are essentially different one from the other; contagion, doubtful for typhoid fever, cannot be doubted for typhus. At the *Ambulance* of the first division of the army, almost all the Physicians and nurses, and nearly all the soldiers, admitted for other diseases, had typhus; fifteen Physicians out of sixteen had it. Between the Crimea and Constantinople, thirty-seven physicians, twenty sisters of charity, eight clergymen, many hundred nurses, all in full health, died from having been exposed to contagion. The incubation of the disease lasted about six days. The Secretary of Dr. Baudens was attacked seven days after having visited an Hospital. The causes of the typhus in the Crimea acquired a great power after the 1st of January, 1856, because then, the soldiers, on account of the cold, had shut themselves up in their tents, the ground of which was damp, and filled with impure matters.

A fact observed in France, upon soldiers coming from the Crimea, shows that the incubation of typhus may be much longer than the average fixed by Dr. Baudens. A regiment left Balaklava on the 29th of April, and came direct to Marseilles, where it landed on the 10th of May. From Marseilles it went up to Calais without any case of typhus; but, from thence, and after May 24, the regiment, travelling on foot, had to leave patients in all the places it passed through. At Neufchâteau, ten soldiers attacked with typhus were left apparently very dangerously ill. Nevertheless, they all recovered, very likely because they were not exposed to the causes of the typhus, and were taken care of in every respect much better than the patients treated in the Crimea or at Constantinople. It results from this fact that the incubation of typhus may be longer than twenty-five days (from the 29th of April to the 24th of May). The details on this subject are related in a letter of M. Garcin, read at the Académie des Sciences on the 16th of June.

A very remarkable paper, on the power of adaptation of the eye to different distances, has been presented to the Academy, by M. Charles Rouget. After having given a new description of a part of the ciliary muscle, recently discovered by a pupil of Professor Douders, M. Rouget shows that the muscular fibres of the iris are a direct continuation of the fibres of this part of the ciliary muscle. He states also that the part already known of the ciliary muscle (*i. e.*, Bruecke's muscle) is in continuity on one side with the choroid, and, on the other side, with the membrane of Desceinct. These anatomical facts being well understood, it is easy to admit that a combined contraction of the ciliary muscle, and of the iris, will increase the antero-posterior diameter of the dioptrical apparatus of the eye. M. Rouget explains all the details of these phenomena, and also of many others, which, according to his anatomical researches, take place at the same time, and among these, particularly, a kind of erection of the iris, produced by the compression of its veins. In the last part of his paper, M. Rouget shows how the results of his researches agree with the important experiments of Krasmer, Helmholtz, and Donders.

An interesting discussion has taken place at the Académie de Médecine on the relations between the horse-disease called *grease* and small-pox. It is well known that Jenner thought that grease was the origin of cow-pox; although, in the only experiment he tried on this subject, he did not see cow-pox produced in a cow after the inoculation from the matter of grease. A case reported to the Academy by M. Bousquet seems to be favourable to the opinion of Jenner. A man having shod a horse attacked with grease, had, twenty-four days after, a vaccine eruption over his hands. The liquid of the pustules, inoculated to some children, produced true vaccine pustules. Another fact, almost of the same kind, was observed in Paris in 1805, on a driver. M. Leblanc, a learned veterinary surgeon, objects to the views of Jenner, and to the conclusions which M. Bousquet drew from the preceding facts. He relates many experiments, made by himself or by M. Bousquet, in which the liquid of grease, having been inoculated either in cows or in men, did not produce anything like vaccine. It seems that M. Leblanc, M. Bousquet, and some other Academicians, did not know fully the state of science on this subject. In an article published in the *Gazette Médicale de Paris*, (No. 24, 14th of June,) M. Chlozan shows that many experiments made by Lay, a physician of Pickering (Yorkshire), and by Sacco, prove that in some circumstances the matter of grease may produce true cow-pox. These experimenters have also seen a few cases of production of vaccine in men who had been touching horses attacked with grease. Jenner relates two cases of this kind; and he says that the cases in which inoculation of grease to cows had produced no specific pustule, prove nothing, as it is well known that the inoculation of true cow-pox on a cow does not produce cow-pox.

GENERAL CORRESPONDENCE.

DR. ANDREW SMITH.

[To the Editor of the Medical Times and Gazette.]

Sir,—My attention was yesterday called to a letter in the *Medical Circular* of the 2nd July, page 8, signed "Andrew Smith;" and, as it is quite possible that part of the Profession, at least, may believe I am its author, I feel it but justice to myself to declare distinctly, that I neither wrote it, nor knew, till yesterday, anything of the circumstances to which it relates. I am, etc. Andrew Smith, M.D.,
Director-General Army Medical Department.

6, Whitehall-yard, Westminster, July 4, 1856.

TARTAR EMETIC IN INFLAMMATORY CROUP.

[To the Editor of the Medical Times and Gazette.]

Sir,—Dr. Elliotson's important paper on this subject, published in your last, is certainly well-timed, and deserves the earnest attention of the Profession. The position in which tartar emetic stands, between the Profession and the public, is not only an anomalous one, but a source of continued doubt and difficulty to the Practitioner. It is not my purpose to dwell upon the various modes of exhibiting this useful agent,

but to urge two points relating to its past and present history. The results given by Dr. Elliotson seem to show that the plan still recommended, of exhibiting it in "nauseating doses," may not be the correct one, although it may be the great cause of the disrelish for its use on the part both of Practitioner and patient. In its present form, there are very few people who would "go on taking it," as the vulgar say. The "nauseating dose" may, perhaps, be rightly assumed to be the *medium* course; and the fair question arises, as to whether such a course is of any legitimate value. I speak only upon the testimony of writers and others. So far back as the year 1818, Dr. Balfour, of Edinburgh, published a pamphlet on the "sedative and febrifuge powers of emetic tartar," a view proclaimed to be novel at the time, in which he gave some most striking results, produced in various inflammatory affections, by administering small and repeated doses, stopping short, as it were, at the appearance of nausea. Here, then, we have two methods which have proved successful, viz., the administration of small doses till nauseating symptoms appear, stopping short of actual nausea, and the heroic plan illustrated by the cases of Dr. Elliotson. If we had full authority for either plan, the first would get over the difficulty with the patient, and the second remove the fears of the Practitioner, who would, doubtless, be alarmed at the symptoms produced. Dr. Balfour mentions that good results were found in cases where no appearance of nausea gave evidence of the action of the medicine; and, in the cases of Dr. Elliotson, it is certain that nothing short of the constant exhibition of large doses could have produced that action upon the system which alone saved the patients. If the latter treatment, sanctioned by Medical authority, be reliable, it will be a great boon to Medical men and the public, whether the former obtain or not. The present treatment of this fatal form of disorder is more than unsatisfactory; it is in some cases worse than useless. If, therefore, we have an almost certain agent, which needs only to be properly employed, a knowledge of it cannot be too early or too widely spread. I am, &c.

J. W. F. Blundell, M.D.

13, Henrietta-street, Cavendish-square.

"THE CONDITION OF VISION THE BEST TEST OF THE SQUINTING EYE."

[To the Editor of the Medical Times and Gazette.]

Sir,—In Mr. C. Holthouse's paper, entitled as above, and published in your impression of June 28, he appears not to have observed a passage in the work of Mr. Dixon bearing on the subject. At pages 301 and 302 of that valuable little treatise the following occurs:—

"An eye which habitually squints, if separately examined, will usually be found defective as regards vision. This inequality frequently exists to a remarkable degree; so that, while the patient can read the smallest type with the habitually straight eye, he can with the habitually squinting one barely distinguish a printed from a blank page."

The above quotation shows that the state of visual power has not been overlooked in the work alluded to; and, indeed, my own impression has been that the circumstance was very well known to all conversant with eye disease.—I am, &c.

St. Thomas's Hospital, July 7. James J. Rudall.

POTASSIO-TARTRATE OF ANTIMONY IN CROUP.

(To the Editor of the Medical Times and Gazette.)

Sir,—Having read in your valuable Journal of last week Dr. Elliotson's remarks on "the great power of the potassio-tartrate of antimony over croup," I can add my testimony as to its efficacy in cases of inflammatory croup, having for several years relied upon it entirely as a remedial agent in such affections; and I consider that if its use is steadily persevered in, the worst cases would submit to its influence.

Having treated upwards of twenty cases with tartar-emetic, and given almost incredible doses, I never saw any bad symptoms arise from its use. I mention the three following cases in illustration of the practice I usually adopt:—

1852, March 28th.—J. T., aged 4 years, a healthy, robust child, had been suffering from inflammatory croup about eleven hours before I saw her, and the case seemed almost a hopeless one. I gave her immediately one grain of tartarized antimony, and covered the thorax with flannels wrung out of hot water. I repeated the grain-doses of antimony every hour for four hours, and afterwards gave her half a grain every six hours. In two days the child was comparatively well, only suffering from great prostration.

1853, May 2.—I was sent for to see a little girl, aged 7 years. Symptoms of croup had set in in the night, her countenance was anxious, and she seemed much distressed. I gave her one grain and a-half of antimony, and applied the hot flannels; in an hour I gave her one grain, and repeated it every four hours, afterwards reducing the dose to half-a-grain every six hours, which was continued for two days; on the fourth day she was so much relieved that my attendance upon her ceased.

1852, July 6th.—W. C., an infant, 13 months old, was attacked with inflammatory croup; he was a delicate child. I gave him half a grain the first dose, and repeated it in an hour. He afterwards took a quarter of a grain every six hours for twenty-four hours, and soon recovered.

I am in favour of giving a large dose at first, as it generally makes a decided impression upon the progress of the disease, and regulate the doses afterwards, as symptoms present themselves. I believe when you administer tartar-emetic, and follow it up, that leeches are contra-indicated, as the depressing effect the antimony has upon the system is quite sufficient to combat the inflammatory action going on. The only objection I have in giving large and repeated doses of the potassio-tartrate of antimony, especially to children, is, that it is not got rid of in the system for many days, after its use has been discontinued, and I feel convinced that its complete elimination does not take place so speedily as is generally supposed.

I am, &c. William Sutherland Meek.

Tarporley, Cheshire, July 8, 1856.

UNION MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have seen with much pleasure your advocacy of Union Surgeons, and I hope the same course may be continued, for it is only through the Press that the public can know how matters are managed by Boards of Guardians, and can credit the dictatorial, and in some instances intimidating, treatment heaped on Union Medical officers. Of all Professions, the Medical is the least selfish and the most enduring; and, as a body, we are deeply indebted to the *Times* newspaper for a leading article on that subject. Repeated applications have been made for a fair and proper remuneration without success; no redress can be obtained, either from the Poor-law Board or the Boards of Guardians; the former tell you, that "the matter is not immediately under their control," which is incorrect; the latter will insult you by saying, that if you do not like the appointment you can give it up; and their only care is to save the rates, drive the poor into the Union-house, separating man from his wife and children, demanding extreme attendance from Medical officers, and that demand accompanied by an anxious desire to find fault upon every trivial occasion: the consequence is that the poor are the sufferers, and are deprived in many instances of the services of Medical men, whom they have known for many years, whom they respect, and who know their habits, constitutions, and, in fact, all their wants, and who deeply sympathize with them in their distress. We must, therefore, apply to the House of Commons: and here again is a difficulty, for the members, "diplomatically speaking," I am sorry to say, do not fully comprehend the subject, and, consequently, are at a loss how to legislate upon it. If such a course does not succeed, and no redress is obtained, we are again thrown on our own resources. Let us, therefore, then apply to the different heads of our Profession, the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries. Let us request their assistance and co-operation, and in case of their refusal, let us meet as members of a liberal and honourable Profession, and coolly and deliberately discuss our grievances, sinking all paltry and petty jealousies, aiding by all the means in our power the cause of common humanity for our poorer brethren; and for ourselves let us not disgrace the noble and successful efforts of the Students in London on the subject of naval Assistant-Surgeons; let us, I say, do all we can, and, if we fail after our applications to the House of Commons, the Poor-law Board, and Boards of Guardians, let us go at once in a body to the Poor-law Board, and tender our resignations; let the

onus rest with them, and not on ourselves; and let the public know and feel that we have done all we can, and, also, that we have done our duty.

What, in my opinion, is wanted is:—

1. That Union Medical Officers should be paid out of the consolidated fund, be Government officers, and not remain under the control of Boards of Guardians.

2. That the remuneration should be fair, and a uniform system adopted, on the per case system, with mileage; for horse expenses form a very heavy item with Medical Officers.

3. That none but qualified Medical men should be recognized as competent to undertake the duties of Medical districts.

4. That one or two Medical Poor-law inspectors should be appointed, who should have a seat at the Poor-law Board, and the sole direction of the Medical department.

5. That the appointment of Union Medical Officers should be permanent, irrespective of Boards of Guardians.

6. That extra services should be paid for, as regards sanatory measures, and certain operations and cases requiring long-continued attendance.

The above observations appear to me such as no reasonable man could object to; and it is surprising that the Poor-law Board, constituted as it is, should neglect the continued applications of Medical Officers of Unions, who number upwards of 3000; the misfortune is, that the Profession is not represented in Parliament, and that the Poor-law Board, and Boards of Guardians, understand one another. The law is not equally administered, either as regards the Profession or the wants of the poor; the orders for nourishment are scarcely ever complied with; and we are told by the Poor-law Board, "*we have not the power to order extra Medical relief, in the shape of meat or porter;*" consequently, the poor are the sufferers, unless relieved privately by the Medical Officer, who is nothing more nor less than the slave of the public, and ours is the only Profession in this land of freedom and charity which has been so long and so infamously neglected. Let us, therefore, my Professional brethren, stand up, and fight the good fight for the poor and for ourselves; let us for once in our lives be united and firm; let us demand our rights, and, if needs must, let us meet and establish a brotherhood, not in words only, but in deed; and, if one single case of persecution comes before us,—"for intimidation has been threatened,"—let that be the signal for a general resignation; and may God defend the right. There must be a limit to forbearance, and more particularly in a just and humane cause.

I am, etc. F.R.C.S.E.

SIR JOHN TROLLOPE AND THE UNION MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The important speech of the Right Honourable Sir John Trollope, in the House of Commons, on the Poor-Law Medical question is not mentioned in your last week's Journal; I therefore imagine it has escaped your notice. He says, "I beg to call the attention of the Right Honourable gentleman, the President of the Poor-Law Board, to the numerous petitions that have been presented on the subject of Medical relief; nothing can be more unsatisfactory than the mode in which Medical relief is now administered throughout the country in many Unions. I know that the mere medicines required would absorb the whole of the salaries given to Medical Officers, leaving them no remuneration or any allowance for their necessary expenses; the amount asked by their petitions is not exorbitant, being only five shillings a-case and one shilling a-mile for a single journey. Perhaps, Medical gentlemen themselves are somewhat to blame for this state of things; under the operation of excessive competition they have been induced to take contracts at a lower scale than they could afford to do. It was notorious that in the case of illness of paupers, private charity was compelled to supply the Medical comforts which the Poor-Law Unions did not provide. I wish this Bill had dealt with the question, and hope that in any future general Bill on the Poor-Law, the subject of Medical relief will be included. As to any additional cost which a more liberal allowance would cause, I think I might refer the House to what is proposed to be done for the preservation of the health of the inhabitants of this Metropolis alone, for whom it is asked that they should vote three millions for the purpose of draining and purifying; the whole amount expended for the Medical relief of the poor throughout England and Wales is two hundred and fifty thousands a year; if that sum were doubled it would make only half a million to preserve the lives of the poor; surely the people would not object to such an expenditure for such a purpose; on the contrary, I am quite sure the ratepayers would most cheerfully assent to it, as, when spread over the entire kingdom, its increase would scarcely be felt.

I need scarcely point out to my Medical brethren the necessity of strengthening the influence of Sir John Trollope's able speech, by immediately sending in their Petitions to the House of Commons, and Memorials to the Poor-law Board. Officers connected with three hundred and forty Unions have voluntarily joined the Association, but one hundred and seventy only have as yet written to me to say they have forwarded their Petitions and Memorials to their respective destinations; such procrastination is highly injurious to the cause. I therefore trust no further delay will take place, if it is really desired to reap the benefit of Sir. John's recommendation before next session of Parliament. The Poor-law Board will count the Memorials, and if they receive only one-fourth of the entire number, it will soon be said in the House that three-fourths of the Unions have made no complaint, and, therefore, are satisfied with their present emoluments. It is in vain for Members of Parliament to advocate our cause in the House, or for men from all parts of the kingdom to assemble at a great expense for a General Meeting, or for a Committee, many of the Members of which live at a great distance from town, frequently to meet, unless these suggestions are carried out by individual Unions; one fortnight ought to have sufficed to sign and send a Petition from each to the House of Commons, and a Memorial to the Poor-law Board; but more than a month has now elapsed since their transmission for signature from me to them. The precise wording of these documents may not be in accordance with the wishes of all; as that is impossible, it therefore becomes the duty of the minority to yield to the majority, otherwise a melioration of the present position can never be expected. The phraseology, however, I imagine need not trouble any one, as the Poor-law Board will make its own regulations. The great object sought for is a fair remuneration, and that may be obtained by the present Petitions, if the Union Surgeons will act promptly and unanimously, without which it cannot be expected the Poor-law Board will pay any attention to their complaints. I am &c., Richard Griffin.

12, Royal-terrace, Weymouth, July 8, 1856.

AMPUTATION IN COMPOUND FRACTURE OF THE FEMUR.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your issue of May 24, just received, under the head, "General Correspondence," on the subject of "Amputation in Compound Fracture of the Femur," there appears a letter, signed "R. Hall Bakewell," etc., in which, although not mentioned by name, statements are imputed to me which I *never* made, and circumstances stated as facts which *never* occurred. I am, &c.

J. Mouat, F.R.C.S.,
Deputy Inspector-General of Hospitals.

Balaklava, June 22, 1856.

REPORTS OF SOCIETIES.

MILITARY MEDICAL AND SURGICAL SOCIETY.

March 13, 1856.

Sir John Hall, K.C.B., President.

(Communicated by the Hon. Secretary.)

Present 48 English, 8 French, and 2 Sardinians.

The proceedings of the last meeting having been read, Dr. Sclaveroni of the Sardinian army, then read the following paper on

THE DISEASES OF THE SARDINIAN TROOPS IN THE CRIMEA.

The author apologised for addressing the meeting in English,

which, he said, was not very correct with him, and said he knew well that an idea might be changed in its meaning when expressed in a language we do not properly know; and he felt flattered in having been received as a member of this Society. He then continued:—"From my youth I loved the English language; and why? because I loved instinctively the people who spoke it, and, I must gladly confess, that I was not disappointed in my affections. It is enough to converse a little with you to be at a loss to guess whether the endowments of the heart are greater than those of the mind, and to know that you belong to a country of freedom, learning, and progress. All the Medical men of my acquaintance who have taken part in the Crimean expedition were astonished at the character and genus of the diseases they had to attend to; their progress, causes, results, and pathological alterations put them almost in doubt, if pathology had here observed the same principles as those learnt by them in the schools. Medical officers felt almost an impossibility of deciding if the nature and character of the observed diseases could agree with the pathological laws sanctioned by long experience. I am, however, of opinion, that, by observing the symptoms which a peculiar disease affords us, we may, to some extent, account for the variety, progress, and characters it presents, if our attention could be chiefly directed to the general conditions of climate and temperature of a country, its geological peculiarities, and the moral and physical state of the natives. Now, what is the character, what the action, what the effects of these general conditions, in reference to the climate, and moral and physical state of our men? What general system of our body, what organs and apparatus are more liable to their action and nervous influence? I do not hesitate to say, that it is the nervous system of organic life; secondly, the very organic functions themselves were deranged hardly without exception. Indeed, is not high temperature, and its sudden change from a tropical heat to a north and chilly one, such as we have to undergo in the Crimea, a debilitating agent of the nervous system? Let us call in question the native inhabitants of the East; observe their customs, life, and passions, and we shall be led to the conclusion that they are under the action of a power enervating their moral and physical constitution. It is not enough to ascribe the decline and fall of this people to their imperfect laws, and to the fanaticism of their religion. Laws and religion are always produced by the cosmotelluric conditions of the country in which they are made, to be then sanctioned by a long influence of a nature peculiar to every people. The effeminacy of Eastern regions is a proverb. The men may be compared to our women; and how can we account for the indifference, apathy, and want of all social and commercial industry, and manly endeavour at improvement? How can we explain Mahometan fatalism without having recourse to the influence of climate, temperature, and geographical condition? The Mahometan nation has certainly had its pride and glory in warlike deeds. She was a conqueror, but that only happened when she contended with nations more effeminate than herself. I am of opinion that cosmotelluric and geographical conditions of Eastern countries are the very causes enervating bodies, and especially the nervous system. Now, if we consider the present case, in which men endowed with different constitutions and nervous sensibility, born and living in a very different climate, temperature and atmosphere, and dying suddenly in this country, we shall be able to estimate the noxious impressions which their organic constitutions had to bear. Next to that, are not the moral affections, joy, hope, fear, memory of one's country, feelings acting in a debilitating way upon the nervous system, so rightly called the emperor and supreme ruler of life? Besides aridity, and barrenness of soil, want of cultivation and of vegetation so necessary to supply our bodies, and vitalize them with oxygen, will they not exercise a noxious influence upon assimilation? A blood wanting in oxygen, an imperfect vital combustion, will these be a convenient and physiological stimulus to our muscular organs? A generally poor nutrition must affect, in the greatest degree, the organic constitution of the vegetative nervous system, and make it more liable to the action of the aforesaid debilitating causes; and it explains also, I believe, the impossibility which the nervous system is under of dealing successfully with the noxious impressions received, and of calling forth those beneficial reactions always to be observed when the nervous system is sound and in a perfect physiological condition; and therefore we observe why common morbific causes acting in this country are modified by the general ones acting especially upon the vegetative nervous system; and diseases called forth are so changing, and the way in which organs express, as it were, that they are suffering, afford less analogy with common and daily symptomatology. A correct observation can only, in this case, explain what pathology cannot account for. Next to the nervous system, the organs more obviously acted on were the digestive and gastro-bilious apparatus; they seemed exclusively charged with pathological performances, and to them ran all morbific tendencies; and, if some exception must be made, it is for the breathing organs, which only for the season were more liable to be impaired. But did the sufferings of the digestive and respiratory organs ever pursue an ordinary progress, or result in pathological changes elsewhere observed? Certainly not. A general and permanent feebleness, a want of all beneficial reaction, of any efforts of the healing powers of nature, were observed by all professional men; and, if we cannot deny that the pathological genius of local diseases was essentially phlogistical, we must confess, also, that this condition can be compared, as Dr. Gaubius has suggested, to a volcanic island in a sea of ice. No wonder, then, if common remedies and ordinary treatment proved unsuccessful, while their insufficiency accounts for the losses we had to sustain. Without mending the general state of debility, without curing pathological conditions of the nervous system, no perfect recovery was to be hoped for. More than an active and rational medicine was migration from this land to one's native country; for we found that the most reluctant internal diseases, the most obstinate external injuries, healed after migration: and how can we account for such a result, without referring it to a healthy modification of the nervous system, which enabled it to react upon the local affection? In spite of all medical attention and the best treatment, I observed some local diseases proceeding and proving fatal. But the strongest argument for the necessity of changing our previous therapeutic views, was as regards bleeding. The Sardinian physicians, and generally all Italian doctors, have been too often, and frequently rightly, charged with the indiscriminate adoption of bleeding; but now they abstain almost entirely from the practice. Those who justify their employment of bleeding by the argument that men coming under their care are almost always under the dominion of the sanguineous temperament and plethora, men in whom inflammation proves destructive with an extreme rapidity, say, that general depletion must be employed with the greatest parsimony and prudence; as if an abode in this country had changed their temperament and condition entirely. Now strange to say, the more important operations of surgery were not followed by those violent and dangerous reactions daily observed in our country. However, the diseases of a phlogistic nature which we observed in the Crimea, did not present symptoms proportionate to their gravity, yet they advanced with a severity only equal to their treachery; and post-mortem examinations revealed organic alterations which we had not foreseen, and could scarcely have supposed. Pneumonia, bronchitis, pleuritis, the fevers which displayed themselves in the Crimea rather with the character of typhus fever, and synochus with diarrhœa, ran on to their fatal results without affording static and rational symptoms peculiar to them. Very frequently, we observed pneumonia without its peculiar heavy and piercing pain, without the impossibility of lying on the opposite side. In some cases crepitation was very feeble, and not accompanied with sanguineous expectoration. The pulse would be small and weak; slow instead of frequent; hard and resisting—wanting, in a word, all sphygmical characters of parenchymatous inflammation. But this pneumonia, which displayed many more symptoms of induration, or some other results of antecedent inflammation, than a present violent one, made progress, and became fatal; and post-mortem examination displayed what could hardly have been expected. A private soldier of my regiment, who had never been in hospital before, was admitted on 14th of last June, having apparently, but a trifling bronchitis, and rather symptoms of congestion of the lungs than of inflammation; a general feebleness was observed, and he died on the eighth day after admission. Post-mortem examination displayed a complete disorganization of both lungs, while both pleural cavities were full of a dense tubercular and suppurating material, and the lungs were reduced to a third part of their volume. Now,

how can we account for the absence of all diagnostical phenomena in a disease like pneumonia, without admitting a state of weakness of the nervous system, which kept the others in a subdued form? And, if it is so with inflammation of the breathing organs, may we not suppose that the same pathological facts occur in the gastro-bilious apparatus? We see men dying daily in Hospitals, whose constitutions, impaired and weakened, no rational treatment could improve In these cases, post-mortem examinations revealed a pulpy state of the mucous membrane, ulcerated, and very often perforated; in a word, disorganization advanced without any symptoms which could make us aware of its progress. Let the nervous system be prevented from acting, and we shall in vain inquire for the existence of common phenomena, by which any disease is discovered. Non-professional men often charged us with inability and carelessness; but, to proclaim the injustice of their charges, we need only put their ignorance in comparison with the difficulty of the Profession, which they abuse, and do not understand. Instead of receiving sympathy, Medical men were reproached for not being able to perform impossibilities: and this has always been the inheritance of the devotion and sacrifices of Medical Officers. War is certainly a great calamity; but is it in our power to prevent it, or remove all the fatal consequences which necessarily follow it? We know far better than those who criticize our acts at home, that our sphere of action is often very small, and such as circumstances and events produce. Our Hospitals were not in want of any essential, but were far removed, however, from English luxury; and here I must truly confess that, in the visits which I made to your Regimental and General Hospitals, I was astonished at their cleanliness, and abundance of all provisions and apparatus for the sick and wounded. In our army, all the requisitions of the chief Medical officer were carried into effect, and sick leave for men and officers to Constantinople or Piedmont was readily granted. Our losses from deaths in the Crimea by disease have only reached 3 per cent., not reckoning those from cholera. Our practice, with very few exceptions, has been guided by the same doctrines which I have heard expressed by the members of this Society; there was, however, some modification in the treatment demanded, more by the difference of temperament, constitution, and special idiosyncrasies of our men, than by any peculiarities in the diseases. General depletion, however, when employed with the greatest parsimony, was not discontinued for intermittent fever, and especially in the hot stage, when accelerated action of the pulse and congestion threatened the organic constitution of some noble viscus; but woe to those who hesitated, and did not speedily have recourse to quinine. The same circumstance occurred in the phlogistic affections of the breathing organs. The necessity for bleeding was closely followed by an opposite state of prostration, and want of nutrition, with sudden emaciation. The nervous system being weakened was not able to induce a propitious reaction, and required all Medical care and attention. Yet asthenic and debilitating treatment, required by the local pathological conditions, would not succeed in the general state of the patients; whereas a tonic and stimulant one could not do better. We had to sail, as it were, between Scylla and Charybdis. A tonic treatment, however, deserved certainly the preference; it was, however, often necessary to lessen or modify the local action of a tonic, especially when we had to deal with gastro-bilious irritation, and more pure and active tonics could be administered; and I employed, with the greatest success in such cases, the infusion of Peruvian bark. Diet also required the greatest attention, and the most trifling excess was always followed by a relapse. Among the many remedies which proved very beneficial in such cases in our hands, I must mention the light infusion of ipecacuanha, prepared in the proportion of 1½ grammes in 250 grammes of water, of which a tablespoonful was administered every hour, until the sensation of oppression about the chest is relieved. I have heard much of the advantages derived from the exhibition of calomel; but it is strange to observe the intolerance and idiosyncracy which our soldiers, and, generally, all our countrymen, present to its action; except in childhood, we are obliged to be very cautious in its use. The violent intestinal pains, phlogistic irritation of the mucous membrane and obstinate diarrhœa, which resulted from its employment, even when given in almost homœopathic doses, prevented us from persisting in its use; and I observed the same fact in the Crimea with reference to all mercurial preparations. It is certainly to be deplored that calomel cannot be of the great use with us as I have heard it described in the hands of different members; more particularly in typhus fever and all gastro-bilious complaints. These cases did better with us, with the use of lemonade, vegetable and mineral acids, light infusions of Peruvian bark, and ipecacuanha; with antispasmodics in the serious period of the diseases; but it was always necessary to lessen or modify the irritating action of ipecacuanha by the addition of syrups and gum arabic. Calomel ought certainly to be of the greatest advantage, if the idiosyncrasies of our men did not prevent its use. The last remark I have to make was afforded by cholera, and in mentioning it I beg to observe, that my opinion is not yet steadily formed. I would ask, does not cholera afford us a striking resemblance to a fit of intermittent fever? Does not the latter simulate a poisoning? and certainly we cannot better compare the symptomatology of both diseases than to a species of poisoning of the system. Now, a striking fact adds a great weight to the analogy, which is, that, in the Crimea, and with the Sardinian troops, the accession of cholera was always preceded by intermittent fevers, and also followed by the same disease. What else can this pathological succession prove than that the diseases have something common both in causes and effects? Towards the end of last August cholera decreased, and at last ceased; only, however, to fill our Hospitals with intermittent fevers; and yet more worthy of our consideration is the fact, that the invasion of the cold stage afforded all the symptoms of cholera, and that many cases of cholera relapsed into intermittent fever. I need not say, that in all such cases large doses of quinine proved very successful. I now come to the end of my discourse, by paying a homage to the great truth, already proclaimed by the Father of Medicine, that if Therapia must be various according to the climate we inhabit, only a diligent perusal and acquaintance with all general conditions, topographical and hygienic, of a country, can lead to a proper and convenient treatment of diseases produced by their noxious action. If a Medical Officer migrates from his own country, and means to treat diseases in the same manner as at home, refusing to admit a different mode of treatment from the general causes peculiar to a country, he will ultimately be compelled to acknowledge many deceptions in the phases of disease, and his own error." The author then paid a graceful compliment to the President and the other Medical Officers of the British Army, who had lately received the honourable distinctions of K.C.B. and C.B.; remarking, in conclusion, that Medicine being a universal Profession, every honour she receives in the persons who embrace her should be considered as extending to all.

[The style of some portions of Dr. Sclaveroni's paper is rather obscure, owing to the fact of its being delivered in a language not perfectly understood by the author, but it contains so many valuable suggestions, that we have thought it proper to publish it as it has been sent to us, with such alterations as we have been enabled to make without corresponding with Dr. Sclaveroni, who is still in the Crimea.—Ed. *Medical Times and Gazette.*]

Sir John Hall thanked Dr. Sclaveroni in the name of the Society for his valuable paper, which they had all listened to with so much advantage, and individually for the complimentary manner in which he had alluded to himself and other Medical Officers of the Army.

Dr. Thornton, 9th Regiment, was of opinion that a bright era dawned upon the Society when the Medical Officers of the French and Sardinian armies came forward, not only to take a prominent part in our discussions, but to give us the benefit of a valuable paper such as we had just now heard. Such an interchange of thought and practice must ensue as would redound to the good of all. He believed, as a corroboration of the views expressed by the author, that many of the cases called cholera last winter were allied in their nature to intermittent fever; he also quite agreed with the notion, that soldiers in this climate will not bear with impunity general depletion; and also in the efficacy of the quinine treatment.

Dr. Blenkins, Grenadier Guards, considered Dr. Sclaveroni's paper most interesting, as displaying the effects of climate on the Sardinian troops; and he could decidedly corroborate the opinions expressed, that bleeding could not be adopted in the great majority of the diseases which had occurred here. He thought that we ought to congratulate Dr. Sclaveroni for having

made his paper so intelligible to us in the English language, and we ought to be so far satisfied in the present success of this Society, that it has embraced the union of the Medical Officers of the allied armies, and the result of these united deliberations cannot fail to be valuable. It was an interesting fact to have had established how little the constitutions of the Piedmontese tolerated the action of mercury, whereas that remedy was almost our sheet-anchor in inflammatory affections; and if deprived of its use in these diseases, we should lose our most valuable aid, particularly when existing symptoms prevented the possibility of general depletion.

Dr. de Chaumont, Rifle Brigade, thought, that a remarkable difference exists between the types of disease existing in the Sardinian states and Great Britain; he believes, however, that we are liable to meet with precisely the same species of asthenic diseases in England as we have done in the Crimea; and in proof of such an assertion, he would allude to the peculiar masked form of pneumonia, previously discussed here. Dr. Alison had shown, that the type of diseases had completely changed during the last thirty years, and he (Dr. Chaumont) believed with the author of the paper, that, during an epidemic of cholera, or intermittent fever, the types of the diseases are similar.

Dr. Sclaveroni had seen the same masked forms of pneumonia in Piedmont as in the Crimea, especially at particular periods, when a peculiar morbific constitution of the atmosphere was general. In the Sardinian army, the use of calomel was always attended with disagreeable, and sometimes with dangerous results; he then alluded to the case of an officer, who, during the past summer, insisted on taking two grains of that drug. Violent diarrhœa, resulting in cholera, ensued, and he died on the same night.

Dr. Hume also wished to thank the author of the paper, and considered that the observations expressed bore the stamp of originality and of a reflective mind. He had also observed a great tendency to intermittence in all diseases, and could quite corroborate the views expressed by the author, respecting the impossibility of using the lancet.

Sir John Hall drew the attention of members to the great advantage often to be derived from local depletion, in those affections of the internal organs, for which general depletion was formerly employed.

Dr. Crawford, 18th Regiment, was glad to find in Dr. Sclaveroni, so admirable an exponent of the doctrines of "Humoral Pathology," and considered that we must join in the views expressed, respecting the non-employment of general depletion. He (Dr. Crawford) had certainly a case of lancets, but it had long since ceased to be of use to him in practice. He could not quite agree with the author of the paper in his condemnation of calomel, when given in those constitutions and diseases adapted for its use. It relieved the chylopoietic viscera, which were generally most at fault in diseases of the Crimea.

Dr. Menzies, Staff-Surgeon, considered that the paper read had but one fault in it, which was, that being so perfect and complete, but little opportunity was left for the possibility of any remarks on the subject treated on. He could speak most highly of the Crimean climate; the native Tatars appear very healthy at Kamara, where he is stationed; and thought that we arrive too rapidly at conclusions, when we attribute the amount of disease which formerly occurred in this army to the effects of any peculiarity in the climate, and that we do not make sufficient allowances for the particular conditions under which the men were then living. He thought that calomel, when given in small doses, in certain forms of inflammatory action, the most valuable remedy.

Dr. Taylor, C.B., also wished to thank the author for the very handsome manner in which he (on the part of the Sardinian Medical Officers) had alluded to himself and others of the British Medical department, with reference to the honours lately received by them; could quite concur in the opinions expressed respecting the intimate alliance of the several diseases which have presented themselves in this army; but he is inclined to attribute them rather to conditions of service, than to the effects of climate.

Dr. Sclaveroni believed that the system of treatment employed in this army may hereafter change, if the men remain sufficiently long in the country to become acclimatized.

Dr. Williams also entirely concurred in the views expressed by the author, and especially as regards the impossibility of resorting with safety to general depletion, in the present type of diseases of armies. Experience, he thinks also, will tend to prove that climate has not really so much to do with the production of disease as many persons imagine. He (Dr. Williams) had served in many parts of the world, and the result of his observations is, that he has become quite a convert to the tendency towards periodicity in almost all diseases. He can also quite subscribe to the great efficacy of ipecacuanha, which he does not think has been sufficiently employed.

Dr. Gordon, C.B., wished to make a few remarks, lest it should appear that the members of this Society were unanimous in their condemnation of general depletion, as applicable to the treatment of diseases occurring among the troops in the Crimea; as far as his experience went he could only say that, in conjunction with the Medical Officers of the 2nd Division, a general regret had always been felt when, after the fatal termination of any case of inflammation of the internal organs, venesection had not been employed.

A vote of thanks was then proposed by Dr. Williams to the author of the paper, which was seconded by Dr. Blenkins, and carried unanimously. The meeting then adjourned.

MEDICAL NEWS.

Royal College of Surgeons.—The following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery, at the Meeting of the Board on the 8th inst.:—

Lemon, O., Pembroke-terr., Caledonian-road, Islington.
Turney, Thomas Henry, Ovenden, near Halifax.
Wootton, Herbert Gillow, Canterbury.
Pugh, John Lister Pool, Halifax, Yorkshire.
Green, Samuel Henry, New Garrett, Manchester.
Slaughter, Charles Henry, Farningham, Kent.
Powne, William, Fowey, Cornwall.
Meadows, Alfred, Ipswich.
Williams, William, Festiniog, North Wales.
Groom, William, Wisbeach, Cambridgeshire.
Greenwood, James, Queen's-road, Dalston.
Byramjee, Rustomjee, Hon. E.I.C.S.
Muriel, Charles Evans, Norwich.
Elwin, Charles Jeken, Broad-street-buildings, City.
Kendrick, Phineas John, Birmingham.
Webb, John Craske, Shaftesbury-terrace, Pimlico.
Gillett, Thomas Carthew, Truro, Cornwall.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 3, 1856:—

Burrows, Samuel James, Witheridge.
Clowes, Francis, Stalham, Norfolk.
Evans, Henry, Blaenant, Cardigan.
Lipscomb, Richard Nicholson, St. Albans.
Tucker, John Archer, Lanmarth, Cornwall.

APPOINTMENT.

University College Hospital.—On Saturday last, Mr. Henry Thompson was elected Assistant-Surgeon to University College Hospital.

DEATHS.

Johnston.—June 25, at Portsmouth, on his landing from the Crimea, Alexander Johnston, M.D., Assistant-Surgeon 68th Regiment, aged 23, son of Mr. Johnston, Surgeon, Stirling.

Veitch.—July 4, at Ovington-square, Brompton, James Veitch, Esq., M.D., Deputy-Inspector of Hospitals and Fleets, aged 86. M.D. Edin.; M.R.C.P.; formerly Surgeon to the Royal Naval Hospital, Plymouth; Surgeon of Antigua Hospital, and of Prisoners of War, Norman Cross, and the Lunatic Asylum, Hoxton. Author—"Essay on the Prevention and Cure of Yellow Fever;" Latin Treatise on the same; the first introducer of Vaccine Inoculation into the Navy, in 1800, under the auspices of Earl St. Vincent; and of the small round single Ligature into the practice of Surgery. "Essay on Amputation at the Hip-joint, and the Ligature of Arteries;" also "A Fasciculus of the Medical Departments of the Army and Navy;" and the inventor

of the Medico-Chirurgical Ambulance for the day of Battle; also, "Proposition for converting our Naval Hospitals into Schools of Medicine," 1835.

We are requested to notice that, on the 8th instant, the wife of Frederick Fitch, M.D., of Chaddesley Corbett, near Kidderminster, was delivered of a daughter. Also, on the 7th inst., at the residence of his father, 27, Gloucester-square, Hyde-park, the wife of Edwin Sercombe, Esq., Dentist, M.R.C.S., of a son.

Meeting of Medical Officers of Health.—A Meeting of the Metropolitan Association of the Medical Officers of Health, was held on Wednesday the 9th inst., at the General Board of Health, Whitehall, Mr. Simon, President, in the chair. The following officers were elected:—*Vice-Presidents:* Dr. R. D. Thomson, and Mr. Liddle. *Treasurer*, Dr. Aldis. *Secretary*, Dr. Hillier. It was decided that there should be four standing Committees appointed:—1. One to report on trade nuisances, their action on health, the means of obviating them, and proceedings taken against them; to consist of Dr. Ballard, Dr. Challice, Dr. Evans, Dr. Gibbon, Dr. Iliff, Dr. Letheby, and Dr. Tripe. 2. A Committee on adulterations and deterioration of food and drugs, their extent and frequency, their action on health, and the proceedings taken against them; to consist of Dr. Ansell, Dr. Barnes, Mr. Beale, Dr. Letheby, Dr. Lankester, Dr. Druitt, Dr. Pavy, Mr. Pittard, Dr. Odling, Dr. Sanderson. 3. One on etiology: to consist of Dr. Barclay, Dr. Barnes, Dr. Bristowe, Dr. Evans, Mr. Holt, Mr. Pearse, Mr. Rendle, Mr. Pittard. 4. One on meteorology; to consist of Mr. Burge, Mr. Burton, Mr. Hunt, Mr. Godrich, Dr. Odling, Dr. Pavy, Mr. Pittard, Dr. Tripe, Dr. Sanderson; and further a Provisional Committee was appointed to report on the state of vaults under Churches, and their influence on health. In each case the President, Vice-Presidents, Treasurer, and Secretary, are ex-officio members of Committee. A report was read from a Provisional Committee appointed, at a previous meeting, to consider the laws relating to the licensing of slaughter-houses, which will be compulsory throughout the Metropolis after the next Quarter Sessions. The meeting then adjourned till that day month.

Professor Owen, F.R.S.—This distinguished naturalist, who for nearly thirty years has been connected with the Royal College of Surgeons as Conservator of the Hunterian Museum, and Professor of Comparative Anatomy, has just resigned his appointments, to enter on his duties at the British Museum as Superintendent of the natural history department.

The Harveian Oration.—The annual Harveian oration (in Latin) was delivered on Saturday in the theatre of the Royal College of Physicians, Pall-mall East, by Dr. Hamilton Roe, in the presence of the Bishop of Chester, Bishop of Bath and Wells, Provost of Oriel, W. E. Gladstone, M.P., and a number of fellows and members of the college. Dr. Paris, the president of the college, in the chair. The Fellows afterwards dined together, and the banquet was attended by several distinguished members of the House of Commons, who delivered eloquent and appropriate speeches.

British Association for the Advancement of Science. — The following selection of presidents has been recommended by the council of the British Association for the next meeting at Cheltenham. Mathematics, Professor Walker; Chemistry, Professor Brodie; Geology, Professor Ramsay; Natural History and Physiology, Professor Bell; Geography and Ethnology, Sir Henry Rawlinson; Statistics, Lord Stanley; Mechanics, George Rennie, Esq.—*Athenæum.*

Some cases of Cholera have occurred at Seville and Huelva.

Mr. Snape's Case.—The trial in this case has been postponed, by consent on both sides, until the next session of the Central Criminal Court. The following were the observations of the Recorder, in addressing the grand jury:—There was one case in the calendar, in which, however, he believed it was doubtful whether a bill would be presented, but in case that course should not be taken, he would briefly state what the law was upon the subject. The case to which he referred was a charge against a Medical gentleman named Snape, of having caused the death of a lunatic patient in the Surrey County Asylum, by exposing him to a very severe and long shower-bath. Now it appeared that since the abolition of the old system of restraining lunatics by chains and similar means the plan of lowering them by the use of the shower-bath had been substituted and found very beneficial; and although in this particular instance death might have resulted from the use of this remedy, yet if the grand jury should believe that the prisoner accused had used ordinary skill in his Profession, and there had been no improper want of caution, but there was merely an error of judgment, they would not be justified in finding the bill, as it would be very hard to make a Medical man amenable to the charge of manslaughter under such circumstances.

Lisbon.—Cholera still appears to increase, and during the heats of summer it is feared that its ravages may greatly augment. Through a strange infatuation of the Board of Health, the Tay has been detained in quarantine, although Lisbon as well as the Brazils is infected with cholera.

Quarterly Mortality.—In the last quarter that ended June 28th the number of deaths in London was 14,069. Notwithstanding a constant increase of population, the deaths placed on the registers were fewer by nearly 1000 than in any corresponding quarter since that of 1852. Epidemics or zymotics, which contributed more than a fifth part of the mortality, were altogether scarcely so fatal as in previous spring quarters; but typhus has been rather active, and the cases in which it was fatal rose to 742, the average in the same season of 1852-55 being 591. The Eastern division suffered most from the complaint, for the deaths there numbered 214, being considerably more than in the South division, though the latter is more populous, and more also than in the Northern which is equally populous, and contains the Fever Hospital. Hoxton New Town, Haggerstone West, Bethnal-green, Whitechapel North, Mile-end are the parts where the disease was most rife. While the deaths from hooping-cough (572) have decreased relatively to those of three corresponding quarters, those from croup discover a decided increase, having risen from 79 to 157. The mortality from diarrhœa was much less than usual. There were 146 deaths from small-pox in the three months; 415 from measles; 412 from scarlatina. The Eastern division which suffered from fever obtained comparative immunity from measles, from which there were only 42 deaths in that region, while in the South it rose to 139. Carbuncle was fatal in 17 cases. Intemperance destroyed 20 persons, besides probably 35 who died from delirium tremens. The mean temperature of the quarter was 51·2°, which is about 1·3° below the average. The mean weekly temperature was above the average in only five of the 13 weeks.

Mortality Notabilia.—In the week that ended last Saturday the deaths of 1027 persons were registered in London. In the corresponding weeks of the ten years 1846-55 the average number was 974, which for comparison with last week's deaths should be raised by a tenth part for increase of population, in which case it becomes 1071. There is a difference of 44 in favour of last week. A man, aged 32 years, died at 27, Drayton-grove, Brompton, on 1st July, of "English cholera," after 72 hours' illness. Diarrhœa shows a slight increase on previous weeks; the deaths from it were 29

Births.—Last week the births of 774 boys and 780 girls, in all 1554 children, were registered, average 1400.

Meteorology.—The mean height of the barometer in the week was 30·008 in. The highest reading occurred on Sunday the 29th ultimo, and was 30·15 in. The mean temperature of the week was 59·2°, which is 2·7° below the average of the same week in 38 years (as determined by Mr. Glaisher.) The mean daily temperature was below the average on every day except Monday, on which day the *highest* reading in the week occurred, when the thermometer in the shade rose to 77°, and in the sun to 102·5. The *lowest* reading occurred on Thursday and was 44°.

Deaths in Public Institutions for the Week ending July 5:—

	Males.	Females.	Total.
Workhouses	45	50	95
Prisons	3	2	5
Military and Naval Asylums ..	7	..	7
General Hospitals	41	12	53
Hospitals for Special Diseases ..	2	5	7
Lying-in Hospitals	3	..	3
Military and Naval Hospitals ..	6	..	6
Hospitals for Foreigners, etc. ..	..	1	1
Lunatic Asylums	3	..	3

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	1	8	4	9	4	7
North	490,396	1	6	5	8	3	8
Central ..	393,256	1	5	4	8	3	6
East.....	485,522	2	2	10	8	11	11
South	616,635	3	7	4	15	8	6
Total..	2,362,236	8	28	27	48	29	38

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, July 5, 1856.*

Causes of Death.	In the Week ending Saturday, July 5, 1856. Deaths of Persons. At all Ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature.....	Mean temp. 59°2						61°3
All Causes	1027	507	163	167	143	31	974·4
Specified Causes	1011	507	163	167	143	31	970·9
Diseases:—							
1. Zymotic Class	228	171	19	16	19	3	240·4
2. Dropsy, Cancer, and others of uncertain seat	51	7	5	17	19	3	43·9
3. Tubercular Class	189	73	65	47	4	..	190·3
4. Of Brain, Nerves, etc. ..	118	50	13	29	24	2	114·0
5. Of Heart, etc.	42	5	8	11	16	2	36·3
6. Of Respiratory Organs ..	105	69	2	12	21	1	96·4
7. Of Digestive Organs ..	41	14	7	12	8	..	65·6
8. Of Kidneys, etc.	12	1	3	2	5	1	12·0
9. Of Uterns; viz. — Puerperal Disease, etc. ..	9	..	7	2	..	..	7·8
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	11	2	4	2	3	..	7·2
11. Of Skin, etc.	..	..	..	..	..	..	2·8
12. Malformations	5	5	..	..	..	..	3·1
13. Debility from Premature Birth, etc.	34	34	..	..	..	..	23·4
14. Atrophy	37	28	1	2	6	..	28·0
15. Age	29	..	..	..	10	19	33·0
16. Sudden	23	15	3	2	3	..	13·5
17. Violence, Privation, etc...	77	33	26	13	5	..	53·2
Causes not specified.. ..	16	..	..	..	..	..	3·5

BOOKS RECEIVED.

Sight-seeing in Germany and the Tyrol in the Autumn of 1855. By Sir John Forbes. London: Smith and Elder. 1856.

Report of the Pathology of the Diseases of the Army in the East. London: Eyre and Spottiswoode. 1856.

The Indian Annals of Medical Science. No. VI. April. 1856.

Tenth Report of the Commissioners in Lunacy to the Lord Chancellor.

Annual Report of the Royal Edinburgh Asylum for the Insane for the Year 1855.

The Surgeon's Vade-Mecum. By Dr. Druitt. Seventh Edition. London: Renshaw; Churchill. 1856.

Introductory Remarks to a Course of Lectures on the History of Medicine. By J. W. Begbie, M.D. Edinburgh: Sutherland and Knox. 1856.

Archiv des Vereins für gemeinschaftliche Arbeiten zür Förderung der wissenchaftlichen Heilkunde. Göttingen. 1856.

TO CORRESPONDENTS.

The case of Bronzed Skin received from *Dr. Ranking* had already appeared in detail in our Hospital Reports.

Mr. Gramshaw's Case of Dropsy of the Amnion and *Mr. Webb's* Case of Poisoning by Chloride of Zinc are in type and will appear next week.

Dr. George Burrows's Clinical Lecture will be published, if possible, next week.

Dr. Wilson's Statistical Report of the Deaths in the Lunatic Department of Haslar Hospital, with especial reference to the condition of the Spleen as examined post-mortem, will appear shortly.

We have received, by the kindness of the Chief of the Medical Department of the Army, a Report on the Epidemic Cholera that prevailed in the Mauritius in the year 1854-55, which will be published among our Army Medical Reports.

Dr. Carl Bäder's interesting case of Successful Tracheotomy will be put in type immediately.

An Advocate of Self-Government has addressed to us a letter on the subject of the Medical Reform Bill, but its publication at present would be superfluous, as the Bill is withdrawn until next Session. Our correspondent strongly condemns the absence of a provision in the new Bill for suppressing illegal practice, and we are bound to state that, whatever may be the opinions of some leading Physicians and Surgeons on the subject, our experience as public journalists teaches us that the great mass of the Profession will be dissatisfied with any scheme which does not aim at protecting the legitimate practitioner, and putting down the infamous and dishonest practices of the quacks.

The Parish of St. Pancras.—We have received copies of the Reports presented by Dr. Hillier to the Vestry of St. Pancras. In these able documents, Dr. Hillier has shown that this vast metropolitan parish is sadly in want of the light of sanitary science, and we hope that his observations and suggestions will meet with due attention from those to whom the reports are addressed.

L.S.A., &c.—The township is comprised in what is termed a "Gilbert Union," and, consequently, the overseers have no legal authority to interfere with the relief of the poor; the Guardian of the township can alone contract with the Medical Practitioner for Medical relief, and our correspondent's rights depend entirely upon his contract. He is not entitled to any fees for extra services, unless his contract makes a provision to that effect. The Act referred to is the 22nd of George III., cap. 83. As to Vaccination, the question is whether the Guardians of the Union have divided their Union into districts with the consent of the Poor Law Board as required by the statute, and have entered into the proper contracts; and if so, then our correspondent must refer to the terms of his contract. No satisfactory answer can be given to any question, in reference to the Poor Law, arising in a Gilbert Union, where the orders of the Poor Law Commissioners are not in force. The other questions and observations of our correspondent on the subject of the Medical Reform Bill, have lost some of their interest now that the Bill has been shelved for the present Session; but, we may observe, that the measure, while it provided for a *minimum* qualification for all members of the Profession, left it competent for any to assume the higher grade of Physician or Surgeon. We agree with our correspondent in thinking that a person should be punished for *practising* as a Physician or Surgeon without a qualification, as well as for falsely assuming those titles.

Errata.—In Elliotson on Tetanic Symptoms, p. 7, col. 2, line 39 from top, for *distressed* read *depressed*. In Dr. Snow's letter on Chloroform, at page 21, 7 lines from the bottom, the word *hog* has been printed instead of *boy*.

COMMUNICATIONS have been received from—

Dr. Andrew Smith; Dr. Snow; Dr. R. H. Bakewell; Mr. Hutchinson; Mr. Startin; Dr. C. F. Moore; Dr. B. W. Richardson; Mr. F. D. Fletcher; Chirurgus; Dr. George Burrows; Mr. Edward Wood; Dr. J. W. F. Blundell; Flemish Interiors; Mr. Lilwall; Dr. F. Fitch; Mr. R. Griffin; Sir John Forbes; The Poor-law Board; The Epidemiological Society; Dr. Carl Bader, Renkioi; Dr. Mouat; C. B., Crimea; Dr. Wilson; Mr. James T. Rudall; Mr. Huxley; Mr. Toynbee; Dr. Leared; Mr. Clarke; Mr. W. S. Meek; Mr. John Lizars; Mr. William Wood.

APPOINTMENTS FOR THE WEEK.

July 12. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

14. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

15. *Tuesday.*

Operations at Guy's, 1 p.m.

16. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

17. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.

18. *Friday.*

Operations at the London, 1½ p.m.; Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

Brompton Hospital, 4 p.m.: Dr. Scott Alison, "On the Heart, and the Sphygmoscope."

ORIGINAL LECTURES.

CLINICAL LECTURE ON HEPATIC DROPSY.

By G. BURROWS, M.D., F.R.S.
Physician to St. Bartholomew's Hospital.

Gentlemen,—In a recent Clinical Lecture, I pointed out to you the characteristic and diagnostic symptoms of dropsy, according as it depended upon cardiac, hepatic, or renal disease, and I then directed your attention to a series of cases in the wards, illustrative of renal dropsy. To-day I will endeavour to illustrate the subject of hepatic dropsy.

A patient presents himself before you with a swollen, prominent abdomen; fluctuation is very perceptible, there is little, or perhaps no œdema of the legs, or of any other part; the face and extremities are emaciated, and contrast forcibly with the bulky body; the complexion is sallow; the conjunctiva slightly jaundiced; there is some pain in the right hypochondrium, or, perhaps only tenderness on pressure, and then upon manipulation below the margin of the right ribs a hard mass is probably detected, projecting more or less towards the umbilicus. The urine is reported scanty, high coloured, and deposits a lateritious sediment; moreover, there may or may not be some feverish excitement, but this will greatly depend upon the duration of the symptoms I have already detailed. Our suspicions in such a case, would be that the ascites depended upon diseased liver, and this diagnosis would be more certainly correct, if the urine were of high specific gravity, and contained no albumen; and the patient confessed to intemperate habits, and the symptoms had gradually developed themselves, accompanied by dyspepsia.

Now, the cases I am about to direct your attention to, will illustrate this form of dropsy, which is generally dependent on cirrhosis of the liver; but before I do so, I am anxious to explain to you the principles on which this form of dropsy may be most successfully treated. The treatment of dropsy is, at all times, confessedly difficult; but, according to my experience, these cases of hepatic dropsy are not so intractable as they are represented to be, in some modern treatises on diseases of the liver.

The first measure to be adopted will depend greatly upon the duration of the complaint. If the patient complain of pain in the right hypochondrium, or if there be tenderness there on pressure, together with febrile excitement, and the strength of the pulse will permit, I recommend you to resort to local depletion. A few ounces of blood may be taken by the cupping glasses or by leeches, from the region of the liver, and this depletion should soon be followed by the application of one or more blisters in the same region. In many cases the symptoms hardly call for vascular depletion, and we commence the local treatment by the application of a blister.

2ndly.—Evacuate the intestines by a freely acting purgative, and repeat this once or twice in the week; this evacuation affords relief, and, I think, is less distressing to the patient, and less irritating to the alimentary canal, than the daily use of less active aperients.

3rdly.—Having premised these measures, I advise you to lose no further time in resorting to the internal and external use of mercury, not in such doses as to affect the system rapidly, and as would be proper in cases of acute hepatitis, but very gradually.

I usually prescribe the pil. hydrarg., gr. iv. cum pulv. scillæ gr. j., nocte maneque, and find this quite sufficient for the purpose. But then, as soon as the blistered surfaces will permit, I order mercurial friction over the abdomen twice in twenty-four hours, and here I prefer the stimulating effects of the lin. hydrarg. to the simple inunction with the ung. hydrarg. According to my experience, there is no remedy so powerful in exciting the absorption of the products of inflammation within the abdomen, or of fluid from the peritonæum, or of stimulating the liver to increased secretion, or the intestines to more energetic peristaltic action, as mercurial frictions over the abdomen. This remedy is not only, in my hands, most efficacious in the treatment of ascites arising from chronic hepatitis, but also of inflammatory effusions within the abdomen; and likewise in obstinate constipations, sometimes erroneously supposed to depend upon mechanical obstruction of the bowels. I advise you to place confidence in these means in the treatment of ascites depending on cirrhosis; but remember it will be necessary to sustain the mercurial action for several weeks. It may be necessary to suspend the mercurial frictions occasionally, and then, if any tenderness be detected in the epigastrium or hypochondrium, a blister may be applied there.

4thly. Simultaneously with this use of mercurials, you may employ diuretics freely, if careful analysis assures you the urine is free from albumen. Some writers of high repute upon diseases of the liver speak disparagingly or doubtingly of the efficacy of diuretics in this form of dropsy, or of the ability to reduce ascites by the use of diuretics. This latter class of remedies are notoriously uncertain in their operation, but, nevertheless, I have found them far from useless in the treatment of ascites, especially where they have been combined with the remedies already enumerated. The diuretics I prefer are the salts of potash combined with sp. æth. nit., and sp. juniperi comp. I generally combine two or more of the following salts of potash in varying proportions—the potassæ bicarb.; potassæ acetas; potassæ tartras; potassæ nitras, and potassæ iodid. When this plan of treatment has not a sensible effect in diminishing the ascites in the course of three weeks or a month, I should recommend you to resort to paracentesis abdominis at once, and not wait until abdominal distension has become enormous and the different internal organs almost paralysed in their functions by the long continued pressure of the effused fluid.

Many advantages may be derived from one operation of tapping, which will not follow upon its repetition; indeed, the frequent withdrawal of the fluid by tapping causes much exhaustion, and may be followed by fatal peritonitis. The first removal of the fluid generally affords great temporary relief to the patient, but other advantages may be expected from the operation. If the operator's hand be carefully passed over the right side of the abdomen, when it is emptied of the fluid, he may ascertain with more exactness the real condition of the liver, whether it be enlarged or small, or retracted; whether its upper surface be smooth or nodulated by deposits in its substance. Such information may encourage a persistence in former treatment, or may dissuade from the use of all further exhausting remedies. Moreover, it not uncommonly happens that, while the abdomen is enormously distended, diuretics and purgatives have little or no effect; but that, when the internal pressure is removed, the kidneys and bowels begin to evince their susceptibility to the influence of remedies previously administered with no success.

Lastly, I may warn you, that patients labouring under this form of dropsy have generally been accustomed to intemperate habits, and will not bear a very low diet. A moderate quantity of dry nutritious food is better digested than slops, and you will find the nervous system and the flatulent stomach require a small amount of some stimulant daily. Having made these prefatory remarks on treatment, I will now advert to cases which are, or lately have been, under your observation in my wards, and in which you have seen this plan of treatment steadily pursued, and sometimes with unexpected success. In other cases, the plan has failed, and the cause of failure has been revealed in the results of the post-mortem examination.

Case 1.—Alfred Stalder, aged 24, admitted June 6th, 1856. Is rather an ill-nourished man; complexion sallow, and rather dusky; conjunctivæ tinged with yellow; voice husky; respirations twenty-four per minute. Has a slight cough. Expectoration viscid and rust-coloured; skin warm and dry; pulse 76, of moderate volume, and soft; tongue moist, coated on dorsum with a white fur, red at tip and edges; is rather thirsty; appetite good; bowels rather costive; urine scanty, high coloured, but clear; specific gravity 1025; contains no albumen; abdomen tense, much distended, and measures

around the umbilicus 37½ inches; fluctuation is distinctly perceptible. On percussion some parts are tympanitic, others dull, the dulness varying with the posture of the patient, except in the right hypochondrium, where it is constant as far as three fingers' breadth below the margin of the ribs; and on manipulation a hard mass can be felt in this region, which is intolerant of pressure. Complains of pain in the loins and epigastrium, which is increased by pressure.

History.—Is a travelling book-collector; unmarried, in good circumstances, and has been in the habit of drinking spirits very freely. A month ago he experienced an aching pain in the loins, aggravated by stooping, and his urine became scanty and high coloured. Two weeks ago, he felt a dull pain in the epigastrium. Eight days ago, he noticed that his abdomen became hard and swollen, which increased rapidly during the two following days, but he does not think it has increased much since. The legs have not been swollen. Two days ago he vomited a quantity of green-coloured fluid, after taking medicine. Has been under medical treatment for the last week; had syphilis eight months ago.

Here we have the symptoms of cirrhosis gradually coming on, obstructing the portal circulation, and causing effusion into the peritoneal cavity.

He was ordered pil. hydrarg. cum scillâ gr. v. nocte maneque sumend. Empl. canthar. hypochondrio dextro. Half meat diet. ℞ Potassæ tart. ʒss., spt. æth. nitrici ʒj., spt. junip. co. ʒss., aq. menthæ pip. ʒjss. M. ft. haust. ter die sumend.

June 9th.—Sleeps well. Has no cough or expectoration. Bowels acted freely after hst. sennæ comp. administered yesterday; urine more abundant, and much lighter in colour. In other respects he continues much the same. Ordered: haust. c. potass. bicarb. ʒi. Pt. pil.

12th.—Complexion less dusky; the abdomen measures 37 inches around the umbilicus; is tolerant of pressure in the lumbar region. Ordered lin. hydrargyri ʒj., abdomini infricand. omni nocte. Perst. pil. et haust.

16th.—Expression languid, countenance less dusky; pulse 100, small and soft; tongue moist, coated on dorsum with a ragged white fur, very red at tip and edges; gums vascular and tender; urine rather more abundant; abdomen measures 36½ inches, dull on percussion in the hypogastric and iliac regions, resonant about the umbilicus and epigastrium. Ordered: Perst. pil. et haust., empl. canth. epigastrio Intermit. infrictio linim.

23rd.—Sleeps well; aspect improved; skin warm and moist; pulse 100, better volume, and soft; tongue moist and nearly clean; gums less vascular and tender; no thirst; appetite good; bowels regular; urine clear and more abundant, about three pints passed in twenty-four hours; abdomen much softer, measures 36 inches on the level of the umbilicus. Ordered: Perst. pil. et haust.

28th.—Improving in all respects; the girth of the abdomen is now only 34½ inches. He has become impatient of the restrictions of the Hospital, and has left the ward of his own accord.

Case 2.—Ellen Smith, aged 40, admitted into Faith Ward October 9, 1855. Her face and extremities rather emaciated; complexion pale and sallow, lips red; skin warm and moist; pulse 96, jerking but compressible; tongue large and tremulous, coated with a thin white fur; thirst moderate; appetite bad; bowels regular; urine scanty; catamenia absent for the last four months; abdomen enlarged and prominent, measuring 41½ inches around the umbilicus in the supine posture; fluctuation very manifest; resonance varying with position. The right hypochondriac region is tender on pressure, and pain is frequently complained of in that situation. Superficial veins distended on the right side of the abdomen. There is œdema of the ankles, the skin of which is erythematous, and has given way above the left ankle, from which some serous fluid oozes.

Auscultation.—Systole of heart prolonged at the apex, natural at the base. Respiration natural.

History.—Is a widow, the mother of three children. Had enjoyed good health until nine months ago, when she took cold during a menstrual period, and the catamenia ceased. She suffered for the next two months from feverishness and pain in the back, and then noticed gradual enlargement of the abdomen, followed by œdema of the legs. In May, 1855, she was admitted into Faith Ward with general dropsy, her abdomen, she states, being so enlarged, and her breathing so oppressed, that it was with great difficulty she was able to walk or lie down; and it was thought paracentesis must be performed immediately. She remained in the Hospital eight weeks under my care, and was then discharged quite well. She continued well up to a month ago, when she was seized with a feverish attack; the skin became very yellow. She suffered pain in limbs and head. The discoloration of the skin passed off, under treatment; but three weeks ago the swelling recommenced in the body, and soon after in the limbs, and has greatly increased up to the present time. During the last month, she has had frequent epistaxis.

Here, then, we had ascites, preceded by jaundice, and accompanied by feverishness and pain, on pressure, over the right hypochondriac region,—symptoms justifying the belief of the existence of chronic hepatitis or cirrhosis of liver. She was ordered C. C. hypochondrio dextro ad ʒvj.; conf. jalapæ co. ʒij. (Pharmac. St. B. H.) cras mane, pil. hydrarg. c. scillâ gr. v., nocte maneque.

11th.—Sleeps well. Countenance pallid. Lips red and dry. Skin warm and moist. Pulse 92, rather jerking, but compressible. Bowels acted freely after the confection. Motions liquid. Urine free. Abdomen about the same. The right hypochondriac region is less tender, and the pain was relieved by the cupping. No œdema of the ankles; the wound above the left ankle has healed. Auscultation the same. Ordered: Perst. pil. nocte maneque. Lin. hydrarg. abdomini infric. omni nocte. ℞ Potassæ acet. gr. xv., potass. nit. gr. x., aq. pimentæ ʒi. M. ft. haust. ter die sumend.

13th.—She has now no pain or tenderness in the right hypochondriac region. Abdomen rather increased in size. Appetite improved. Bowels regular. Urine free. Ordered: Perst. haust. pil. et linim.

27th.—Has not been quite so well for the last few days. Complains chiefly of weakness. Face pallid. Skin warm and soft. Pulse 72, moderate volume, and soft. Tongue clean. Thirst moderate. Appetite indifferent. Bowels regular. Urine more abundant, but rather high-coloured for the last week. No pain in any part of the abdomen (which measures 36 inches around the umbilicus); fluctuation still perceptible, resonant over superior parts, dull laterally, but varies with change of posture. Ordered: Pt. lin., pt. haust. c. tinct. cinch. co., spt. junip. co. āā ʒi. ter die sumend.

November 17.—States she has felt very well for the last week. Abdomen less prominent; now measures 35 inches around the umbilicus. Expression natural. Is able to walk about without the least difficulty, the abdomen being supported by a flannel roller. Pulse 84, of moderate volume. Tongue nearly clean. Gums slightly vascular and tender. Bowels regular. Urine free. Ordered: Pt. haust. et lin., hydrarg. alt. nocte.

24th.—Says she feels light, and is able to walk about easily. Abdomen measures 35 inches; no perceptible fluctuation; the superior parts resonant on percussion, the depending parts rather less resonant Pulse 84, of moderate volume. Tongue nearly clean. No thirst. Appetite good. Bowels regular. Urine free. Ordered: Pt. haust. et lin. hydrarg.

December 1.—She describes herself as feeling quite well. Discharged.

In this second case you had an opportunity of witnessing the good effects of the plan of treatment I recommend to you in hepatic dropsy in a much more striking manner than in the former case. Although this woman was twice relieved of her dropsy under my care in one year, still we have reason to fear that her hepatic disease is, unfortunately, not removed.

Case 3.—A. C., aged 54, admitted into Matthew Ward, October 17, 1855. Is an ill nourished man; countenance pallid, and slightly puffed. Skin warm and moist. Pulse 84; jerking, but compressible. Tongue pallid and clean. Thirst moderate. Appetite good. Bowels act daily. Urine scanty, and reported natural. Abdomen much enlarged, measuring 38 inches around the umbilicus; its walls are tense; fluctuation very manifest; resonance varies with posture; superior parts being resonant, and dull laterally. The right hypochondriac region is rather tender on pressure; and a hard substance is felt beneath the ribs. The legs are œdematous, the skin being rather inflamed and painful.

History.—A married man, occupied as a porter. He has lately lived very regularly; but a few years ago he had been in the habit of drinking gin and porter very freely. He enjoyed good health up to Christmas, 1853, when he took cold, and few weeks afterwards observed swelling of the ankles,

which gradually increased. In February, 1854, he was admitted into the Hospital with general dropsy; and, after remaining about two months under Dr. Burrows' care, completely recovered, and was discharged. He continued well up to two months ago, when he again took cold. Soon after he observed enlargement of the abdomen, and swelling of the ankles, which have been increasing up to the present time. He was ordered conf. jalapæ co. (Phar. St. B. H.) ʒij. hac nocte. Broth diet.

18th.—The confection has acted five times on the bowels. Urine scanty, but contains no albumen. Pain continues in the right hypochondrium. Ordered: Pt. confect. alt. quoque mane, empl. canth. hypochond. dextro, pil. hydrarg. e. scillâ gr. v., nocte maneque sumend.

23rd.—Face less puffed. Pulse 80; moderate volume, soft. Bowels act freely. Urine more abundant. Abdomen measures 37 inches around the umbilicus. Has no pain or tenderness in the right hypochondrium. In other respects is much the same. Ordered: Diet, mutton chop. Pt. pil. nocte maneque.

℞ Potassæ acet. ʒj., potassæ nit. gr. x., spt. æth. nit. spt. junip. co. āā ʒj., aq. menthæ pip. ʒj. Fiat haustus ter die sumend.

30th.—Abdomen more tense and prominent, measuring 38 inches around the umbilicus. No pain or tenderness in the right hypochondrium. Blistered surface healed. Ordered lin. hydrarg. abdomini omni nocte infricand. Pt. haust.

Nov. 6.—Feels much better. Abdomen less prominent; measuring 36 inches around umbilicus. Œdema of legs less. Gums slightly tender. Ordered: Pt. haust. pt. lin. hydrarg. alt. nocte.

20th.—Abdomen less tense; fluctuation manifest; measures 33 inches around umbilicus. Œdema of legs nearly gone. Is much the same in other respects. Ordered: Pt. haust. et liniment. Half meat diet.

Dec. 4.—Abdomen less prominent and softer, fluctuation being still perceptible; measures 31½ inches around the umbilicus. No œdema of the legs. Pulse 72, moderate volume, soft. Tongue moist, and nearly clean. Thirst moderate. Appetite good. Bowels regular. Urine more abundant and free. Gums slightly tender. Ordered: Pt. haust. et liniment.

18th.—He complains of feeling weak; but the general symptoms continue to improve. The abdomen only measures 31 inches around the umbilicus, and no perceptible fluctuation. Ordered balneum calidum. ℞ Liq. hydrarg. bichlor. ʒj., decoct. sarzæ co. ʒiss. Ft. haustus ter die sumend. He continued to improve in health, and, after another fortnight, was discharged, without any œdema or perceptible ascites; but the indurated liver could be felt beneath the margin of the ribs.

The following case proves that this plan of treatment is not always successful:—The want of success was rendered intelligible to us when we had an opportunity of examining after death into the condition of the liver, and other secreting organs. We then discovered that the case was irremediable, for the liver had undergone such changes of structure as must be considered irreparable; and, moreover, the secreting structure of the kidneys was also seriously impaired. But although we failed of giving relief by the plan of treatment I have recommended to you, we have no reason to believe that treatment shortened the poor woman's existence; her death was occasioned by one of those intercurrent disorders (erysipelas) so common in chronic visceral disease, and which so frequently brings such cases to a fatal termination.

Case 4.—Eliza Driver, aged 44, admitted into Faith Ward, December 6, 1855. Complexion sallow; capillaries of face injected; conjunctivæ deeply tinged with yellow; abdomen swollen, soft; measures 40 inches around the umbilicus; fluctuation very perceptible, resonant on percussion superiorly, dull laterally; superficial veins distended; tenderness on pressure in the epigastrium, and right hypochondrium, where a hard mass can be felt, extending midway between the cartilages of the ribs and the umbilicus. Legs œdematous; skin warm and dry; pulse 84, small and sharp; tongue glazed and nearly clean; has no appetite; thirst urgent; bowels act daily from medicine; urine scanty, and high coloured.

History.—Is cook at an inn; has been ill and in a weak state for the last three months, but had no pain in any particular part. A fortnight ago she noticed swelling of the ankles, which has rapidly increased up to the present date. Catamenia ceased six months ago.

Auscultation—Heart's sounds natural.

Ordered Semicupium statim. Empl. canth. hypochondrio dextro. Pil. hydrarg. c. scillâ gr. v., nocte maneque sumend. ℞ Potassæ tart. ʒss., potassæ bicarb. gr. xv. ex aq. menthæ pip. Ft. haust. ter die sumend. Diet—mutton chop.

The same plan of treatment was continued until the 20th of December, with but slight benefit to her general symptoms, when she was attacked by erysipelas of the head and face, for which she was ordered—℞ Ammon. sesquicarb. gr. v., tinct. cardam. co. ʒi., ex mist. camphoræ. Ft. haust. 6tis horis sumend., fotus papaveris faciei. Brandy ʒij., beef-tea and arrow-root. The erysipelas subsided on the 29th, but left her in a state of extreme exhaustion, from which she died on the 5th of January, 1856, the abdominal enlargement and tenderness in the right hypochondrium being unrelieved.

Examination nine hours after death.—Body œdematous as high as the abdominal walls; the latter being distended by a mixed accumulation of fluid and gas in the sac of the peritonæum. Rigidity well marked in the lower extremities only; skull and its contents natural; sinuses laden with soft, separated, watery clots; pericardium occupied by about an ounce of clear, straw-coloured fluid; heart natural. The clots contained in its cavity separated, but thin and watery; lungs collapsing slightly; the upper lobes equally emphysematous, pale, puffed up, devoid of crepitation; the deficiency of blood was well marked in these portions, even in the most depending parts. A like condition was observable along the anterior and internal edge of the lower lobes. Pleuræ natural. The peritonæum was occupied by a large collection of clear fluid, in which a few cloudy coagula occupied the deeper strata. The membrane itself, bathed in this fluid, had acquired a sodden appearance, but was otherwise natural, save where it formed the investment for the liver. This organ, on opening the abdomen, fell away from the diaphragm and adjacent abdominal wall. It appeared small and contracted, yet retained a weight of 56 ounces. Its edges were rounded and irregular; its surface was of a pale yellow colour, interspersed with streaks of a greyish white. The yellow portions were raised, so as to give a granular appearance, while the grey seemed to map them out, separating them one from the other. None of the granules exceeded the size of an ordinary swan-shot. They seemed as though covered by a film, this appearance being due to a slight opacity and thickening of the serous membrane. Cutting across the liver the knife met with resistance, the tissue cutting crisply; yet on its withdrawal its surface was covered with grease. The first thing which struck one, on looking at the cut surface, was the almost entire absence of blood; the same aspect had been retained as had been observed on the exterior, but the contrast between the yellow and the greyish-white bands was more conspicuous. The mouths of the hepatic veins gaped as usual, and some dark fluid blood trickled slowly from them; but there was no trace of the other vessels proper to the organ, save a few of the very largest trunks. Tracing the portal vein from its commencement, no thickening of Glisson's capsule was to be observed; yet the branches of this vessel could not be traced beyond the third or fourth divisions; beyond this point an injection was made to penetrate, but it did so very sparingly, and it was only here and there that a vein was then demonstrable, straggling through the condensed tissue. Bile was still secreted, as a considerable quantity was present in the gall-bladder, rather thick, and of a dark brown colour. On examining a portion of yellow granular matter under the microscope, it was found to consist almost entirely of fat, in globules and granules; among these a few cells, resembling the ordinary secreting cells, were irregularly scattered, and here and there a few fibres of cellular tissue, pursuing no definite arrangement, and forming, in all probability, a part of the greyish tissue visible to the naked eye. The veins leading to and forming the great portal trunk were laden with dark fluid blood, and from this cause portions of small intestine appeared to be much congested. The kidneys retained their usual size, but on removing their capsules their surfaces were seen to be rough and granular, a portion of the medullary layer separating with the capsule. On a cut surface they appeared pale, but no deposit was discernible, save only that some of the tubuli seemed to be blocked up by an accumulation of ordinary renal *débris*. The renal veins were tinged with blood. The capsules of the ovaries were much thickened. The other organs were examined, and found natural.

LECTURES
ON THE
VARIETIES OF CONTINUED FEVER AND THEIR DISCRIMINATION.

DELIVERED AT

St. Thomas's Hospital.

By THOMAS B. PEACOCK, M.D.
Assistant-Physician to St. Thomas's Hospital, etc.

During the course of last summer I was requested by some of the pupils of this school to deliver a few lectures on the distinctions between typhus, typhoid, and other forms of fever, and explanatory of the reasons which led some practitioners to regard them as specifically distinct diseases. At that time a pressure of engagements prevented my complying with their request; but during the spring the following lectures on this subject were delivered.

Lecture I.
GENERAL REMARKS—VARIETIES OF FEVER—TYPHUS.

In the infancy of Medical knowledge, the distinction between different diseases were necessarily founded on the phenomena observed during life. When, however, attention was directed to the study of healthy and morbid anatomy, attempts were made to associate the various groups of symptoms with changes of the solid structures of the body. Thus, the forms of fever which had previously been regarded as the results of morbid poisons affecting the whole system, were thought by various observers to be only the symptoms of the constitutional disturbance excited by inflammation of some of the internal organs, as the gastro-enteric mucous membrane by Broussais, the membranes of the brain by Clutterbuck, or of different important organs by others.

Of the various medical theories which have at different times been advanced, few, if any, have excited so much discussion as the views of Broussais; but happily, instead of their having been contested on merely speculative grounds, they were subjected to the test which alone could prove their truth or falsehood. The phenomena of fevers were closely observed at the bedside, and the conditions of the body after death were carefully investigated; and thus, while the exclusive views of Broussais were proved to be untenable, information was elicited which has entirely altered the generally received ideas as to the so-called continued fevers.

Thus, it was ascertained that in Paris the form of fever which prevailed was associated with lesion of the intestinal mucous membrane, though it was also shown that the intensity of the febrile action bore no regular relation to the amount of local disease, and could not, therefore, be regarded as produced by it. In other localities, as in Edinburgh for instance, it was found that the prevalent fever was as constantly unconected with any affection of the intestinal mucous membrane, and that the disease might exist in such intensity as rapidly to destroy life, without leaving behind it traces of morbid change in any organ. Two well-marked forms of disease were thus shown to have been included in the class of continued fevers, which, though bearing very close general resemblance to each other, yet presented various striking points of difference. For the latter form of fever the old term of "*typhus*" has been retained, while the former is now usually known as "*typhoid* fever."

More recently, however, a third form of fever was found occasionally to occur, and sometimes to become epidemic, which presented yet more striking differences from either of the others. This affection is characterised by its following for a short period the course of an intense attack of continued fever, then rapidly subsiding and terminating in convalescence, when an exacerbation or relapse occurs, and this is succeeded by another period of intense fever, which again subsides as rapidly as before, and these processes are sometimes several times repeated. To this form of affection the term "*relapsing fever*" has been applied.

Lastly, Medical men had long been familiar with the frequent occurrence of cases of fever, sometimes presenting considerable severity, but distinguished from all the former by the tendency to terminate in health at the end of a few days; and hence the terms "*ephemera*" and "*febricula*" have been given to such cases.

Of the relations which exist between these four forms of fever, practical writers have differed greatly, some regarding them as mere varieties of one and the same disease, produced by local or individual modifying circumstances. Others, among whom I should especially mention Dr. Jenner,—for to him we are indebted for a series of the most carefully conducted and extensive observations of the phenomena of the different forms of fever which prevail in this country, and for a most able investigation of the whole subject,—contend that they are essentially distinct diseases.

I shall not, however, at present enter into any discussion of this question, but as, whatever be the relations in which these forms of disease stand to each other, they are well characterised by the symptoms presented during life and the appearances observed after death, and thus constitute forms which can readily be recognised, and which are of importance both in reference to prognosis and treatment, I shall treat of them as distinct affections. The explanation of my reasons for so doing I shall defer, till, having explained their general features, I shall be better able to point out the peculiarities which severally distinguish them, and the grounds on which their specific distinctness has been contended for.

Typhus, then, may be defined to be a form of fever dependent on contagion, and characterized by the appearance of a peculiar eruption on the skin. The disease has a definite mode of invasion, follows a regular course of increase and decline, and when it terminates in death does not necessarily leave behind it any evidences of morbid change in the structures of the body.

Typhoid fever may be stated to be sometimes contagious, but probably also most frequently originates in common causes. It is generally characterized by a peculiar form of eruption on the skin. It has a less definite mode of invasion and course than the former, and after death, when it so terminates, certain sufficiently characteristic morbid changes are constantly found in the alimentary mucous membrane.

The *relapsing fevers* are characterized not only by the peculiar tendency to remit and relapse to which they owe their designation, but also by their almost constant associations with evidence of intense biliary derangement, and, by the absence of any eruption on the skin and definite morbid changes after death in the alimentary canal.

Febricula, or ephemeral fevers, as before stated, are distinguished by their tendency to terminate in health in a few days.

I shall now proceed to speak more particularly of typhus.

Typhus; mode of invasion; symptoms and progress. — A patient is usually attacked with this form of disease suddenly, so that he will generally be able, if not too much prostrated and oppressed when admitted, to state how long he had been ill, and to specify the particular day of seizure. He usually first experiences headache, more particularly frontal, pain in the loins, and general pains and soreness in the limbs. He has also loss of appetite; occasionally nausea or even vomiting, prostration of strength and inaptitude for mental exertion. He has not usually severe rigors, but transient chills followed by flushes of heat are common, and the skin becomes hot and dry. With the progress of the disease, the prostration of the strength increases, the eye becomes dull, and the expression of countenance depressed. The tongue is coated with a thick whitish fur, and somewhat dry. The pulse is usually somewhat quick, and generally small and feeble, or if possessed of more power at the commencement of the disease, it usually rapidly becomes weak. The patient is torpid, and though when addressed he answers questions rationally, he is unwilling to be aroused; usually he is somewhat deaf; the headache and general pains continue or increase, and he has often tinnitus aurium, and generally restlessness at night, or if he sleeps he is troubled with alarming dreams, and starts frequently; occasionally there is slight delirium at night. The bowels may either be confined or relaxed in the early periods of the disease, but more frequently they are confined, and the motions are uniformly dark-coloured and offensive. The urine is passed in small quantity, and is high coloured. In consequence of the rapid prostration of strength which takes place in this form of fever, you will usually find that the patient is very soon compelled to keep his bed, or applies

for admission into the Hospital at an early period, generally from the fourth to the seventh day from seizure.

About the same period of the disease also, or from the fourth to the seventh day, an eruption usually makes its appearance on the skin. It is generally first observed on the abdomen, and it spreads thence to the thorax, shoulders, and back, and subsequently may appear on the arms and thighs; and even on the face, fore-arms, hands, legs, and feet. When it first appears, some of the spots are occasionally slightly elevated; but if so, this elevation soon subsides, and, at the time the patients are usually admitted into Hospital, the spots are not at all elevated. They are irregular in outline, and not distinctly defined. At first the eruption is generally of a pale rose-tint, and fades when the skin is pressed. Subsequently, however, it becomes darker, more of a purple hue, and does not entirely fade; and, at a still later period it is of a deep purple colour, and unaffected by pressure, being, indeed, entirely petechial. This eruption has had the terms "measley" and "mulberry" applied to it, and such terms sufficiently describe its appearance, when fully out.

While the eruption is coming out, the general symptoms also become more severe. The prostration of strength increases, and the cerebral symptoms become more marked. The patient generally is somewhat deaf; and is with difficulty aroused to answer questions, or to protrude the tongue; and his voice is feeble and raucous, and he is unwilling to take food. The expression of countenance becomes oppressed, the eye very dull, the conjunctivæ more or less injected, and the pupil usually contracted. The tongue when protruded is found covered with dark, dry fur; and sordes form on the teeth. The tongue and extremities are also tremulous; and often there is some twitching of the tendons, with muttering while the patient doses. The pulse also becomes very weak, and generally quick, from 120 to 130 in the minute; sometimes, however, it is comparatively slow, not more than 90 to 100. Generally, the respiration is somewhat quickened and imperfect; and on listening to the posterior parts of the chest some rhonchus of a sibilant or sonorous character, will generally be heard.

Occasionally, there is more active cerebral, or pulmonary symptoms, as urgent delirium, with greatly injected conjunctivæ and contracted pupil, or decided bronchitis, or pneumonia.

If no amendment take place, the patient gradually becomes worse; he is less and less capable of being aroused to answer questions or take food; and, when he speaks, does so in a feeble and scarcely intelligible voice, and either cannot be got to take food, or is incapable of swallowing it. He constantly moans and mutters to himself; has incessant catching at the bedclothes, and twitching of the tendons, not unfrequently, also, slight spasms of the face and neck. The pulse now becomes very rapid, 140 in the minute, and very feeble, so that it can scarcely be numbered, or it is intermittent at frequent intervals. The eruption becomes entirely livid and unaffected by pressure, and is combined with large purple patches, *vibices*, or *ecchymoses*, and frequently sloughs form on the sacrum or hips, and occasionally on any parts on which the pressure bears, as on the elbows. The stools are passed involuntarily, and generally, though previously the bowels may have been confined; there is more or less diarrhœa. The urine is also either passed involuntarily or retained. In the former case, the bedclothes acquire a very ammoniacal odour; in the latter, the urine, if removed by the catheter, is usually found in very small quantity, often alkaline, and sometimes albuminous. The patient lies entirely helpless on his back, and has a tendency to drop down towards the bottom of the bed. The hands become livid and cold, and when the skin is blanched by pressure, the colour very slowly returns. These symptoms, to which the term "typhomania" has been applied, gradually increase till the patient dies comatose or convulsed, generally from the tenth to the seventeenth or eighteenth day.

The fatal result may, however, take place at an earlier period from the intensity of the prostration of strength, or from the occurrence of active inflammation in some internal organ, more especially the brain or lungs, or, at a later period, from some accidental complication, as bed-sores.

Such is the progress of a case of typhus of the most unfavourable description, such as we too often see in persons who have been long in a state of destitution, sleeping in the open air, or in the crowded common lodging-houses, and such as from its frequency among the Irish labourers has gained a painful notoriety as the Irish Fever.

If, however, the disease be less intense, amendment may manifest itself two or three days after the first appearance of the eruption. The eruption itself may never be very marked, and may rapidly disappear, without becoming livid. The cerebral symptoms may not amount to more than some tremor of the hands, or transient delirium, or moaning during sleep. The prostration of strength may never be very great, so that the patient may be able to move himself in bed. His pulse may not be very rapid, or weak; and he may throughout take food and support fairly, and be fully conscious when addressed, and when he passes his evacuations. When this is the case he gradually improves in strength, till he may be considered as convalescent on from the fifteenth to the twentieth day from the commencement of the symptoms.

In the more severe cases, also, there may be a gradual amendment commencing after the eruption has been out five or seven days, or at the fifteenth or twentieth day of the disease. The torpor, oppression, and prostration of strength becomes less; the patient takes food better, sleeps for longer intervals, and more tranquilly; the pulse becomes less frequent and of greater power; he displays more consciousness when the evacuations are passed, and is more easily aroused and is more intelligent when addressed. The petechial eruption is less distinct, and at last disappears, and convalescence may be regarded as established at from the twentieth to the thirtieth day. In both cases the urine, before scanty and high-coloured, becomes more copious, and deposits much sediment of lithate of ammonia; and the skin from being dry and harsh and often cool, becomes moist and warm, and there is a tendency to perspiration, especially on the head and trunk. Generally, provided there be no complication, the patient is able to leave his bed in about twenty to thirty days from seizure, and the Hospital in from thirty to forty days from seizure, and from twenty-five to thirty-five from admission.

The following cases afford good examples of ordinary typhus:—

Case 1.—*Mild Typhus fever. Recovery.*—Michael Mahoney, aged 20, admitted into Jacob's ward, under my care, on February 12, 1856.

When admitted he stated that he had been ill seven days, and that he was first seized with pain in the head and aching in the limbs, followed by shivering and feverish symptoms. He had been in constant work up to the time of his seizure, engaged in unloading vessels in the docks, and he was not aware that any one had had fever in the house in which he lodged. He was directed to have a mild aperient powder, and to have the hair cut short, and to take the mixture of chlorate of potash and hydrochloric acid in decoction of bark every three hours.

The following notes were taken on the 14th:—He states that the pains in the limbs have left him since his admission, but he is very feverish. The tongue is coated with a thick whitey-brown fur, and dryish. There are no sordes on the teeth. His face is somewhat flushed, and the skin hot and dry, and there is an eruption on the skin, especially of the abdomen, which was observed on the day of his admission. Some of the spots are slightly raised and disappear on pressure, but the greater part are not raised, and do not fade; they are of a deep rose colour. He complains that he cannot sleep at night, and there is some tremor of the hands; the pupils are natural. He has not had epistaxis; for the last three days he has had a slight cough, and to-day has had some difficulty in making water. The bowels are acted upon regularly, and he has not, from the first had any diarrhœa; and there is no tenderness or inflation of the abdomen. He was directed to continue the mixture, and to have two glasses of wine daily.

16th.—He expresses himself as feeling better, but his general appearance is torpid and oppressed, and he is much prostrated. The tongue is morbidly red at the tip, and the papillæ are elongated, and there is a whitey-brown fur on the dorsum. He complains of pains in the head and back of the neck; the pupils are small, and the conjunctivæ injected; there is some slight tremor of the hands; the pulse is 64, feeble; the bowels are acted upon once daily; the eruption has not entirely disappeared from the skin. Yesterday he was ordered to have 3 glasses of wine daily, and to-day he was directed to discontinue the chlorate of potash, and take

5 grains of the sesquicarbonate of ammonia in one ounce of infusion of serpentary every three hours.

19th.—He states that he feels much better. The tongue is cleaner, the pulse still 64 in the minute. He has no pain in the head or limbs, takes his food and sleeps well. The skin is cool, the bowels open once daily. The eruption is quite gone.

20th.—He is generally improving, but the tongue is still white and somewhat dry. Pulse 52; heart's sounds natural, but very feeble. He sleeps comfortably at night, and has not been delirious during his attack. He takes his food well. The bowels have not been acted upon for the last two days. Pil. rhei c. hydrarg. gr. x. stat. sumend.

21st.—General appearance much improved. Tongue dry, covered with a whitish fur; bowels acted upon twice. Pulse 76. To take 2 grains of quinine in an ounce of the cinchona and acid mixture three times daily; to be allowed fish or chop.

27th.—He has improved much since last date. The tongue continues dryish and slightly furred towards the root. Pulse 80, quiet. He takes his food well. The bowels act regularly. To be allowed to get up. To have the mixed diet; the wine to be reduced to two glasses daily.

March 8.—Discharged.

This case affords an example of the ordinary form of mild typhus fever. The patient was admitted on the seventh day of illness; an eruption was observed on the skin at that time, and it had disappeared on the seventh day after, or the fourteenth day from seizure; and he became convalescent in four days more, or on the 18th of his illness, and was discharged cured on the twenty-first day from admission, and the twenty-eighth from seizure.

Case 2.—*Severe Typhus. Recovery.*—Thomas Gardiner, aged 27; gardener; admitted into Jacob's Ward, under my care, March 17, 1856. When admitted, he presented the usual symptoms of fever, but was not much prostrated, being able to walk to his bed. He was directed to have the bowels relieved by a dose of castor-oil, and to take the sesquicarbonate of ammonia, and liquor ammon. acet. in camphor mixture every four hours, and to have two glasses of wine daily.

The following notes were taken on the 19th:—

He states that he has been ill a fortnight or three weeks; but his intelligence is so much impaired that this report cannot be depended upon. (Subsequently it was ascertained that he could not have been ill more than one week, and had continued at his work till a day or two before his admission.) He was admitted from a house, in which every resident, consisting of a man and his wife, and two children, with this man and another, who were lodgers, had had fever. The former cases had recovered when this man was seized; but the other lodger, who was also admitted into the Hospital, had characteristic typhus. The tongue is dryish, and covered with a whitey-brown fur; skin moderately warm and dry; pulse 108, small and feeble. There is a copious eruption on the skin, chiefly of the thorax and abdomen; and it extends to the shoulders, and slightly to the forearms; it does not exist on the neck. There are some spots on the thighs, and the back is very fully covered. Some of the spots are slightly elevated, and fade on pressure; but the majority are not elevated, and do not entirely fade; and yet others are of a deep purple colour, and are wholly unaffected by pressure. The bowels have been acted upon four times in the last two days. He lies constantly on his back, but is intelligent when addressed. His voice is husky. The medicine was directed to be taken every two hours, and the wine to be increased to four glasses daily.

20th.—He is very much prostrated, has a torpid expression, and lies in the position in which he is placed. His breath is very offensive. Tongue ragged, morbidly red, and dryish. The eruption is still copiously out on all parts of the trunk. The spots are more discrete than usual, and more distinctly defined. They vary in size from half a line to about two lines in diameter; they are not at all elevated, and do not entirely fade on pressure. There are some spots on the neck, but none on the face. The conjunctivæ and pupils are natural. The tongue is tremulous when protruded, and there is some tremor of the hands and subsultus tendinum. The hands are livid. Pulse 120, very feeble. He slept last night, and was not delirious, but moans to himself, and cannot be made to answer intelligibly. The bowels were once moved during the night, and he has passed water; he has an occasional cough; has taken food and support fairly. To have a glass of brandy, in addition to the wine.

21st.—Very much prostrated. Tongue covered with a brownish fur; dry above, and moist at the sides and edges. He cannot be got to answer questions intelligibly. He was very restless and delirious during the night, and was continually endeavouring to get in and out of the bed. The bowels have been relaxed three or four times in the last twenty-four hours. The abdomen is somewhat tumid; he makes water freely. Pulse 120, very feeble, beats unequal in power. There is much tremor of the hands. The eruption continues fully out.

22nd.—Looks better, and is more intelligent. Tongue dryish; very tremulous; pulse 120, very feeble; skin moderately warm and dry; hands tremulous and livid, and some twitching of the tendons. The eruption is still fully out, and now consists partly of distinct spots, and partly of a general discolouration of the skin, as if from an eruption not fully out; some of the spots are deep purple, and do not fade; others fade partially. The spots exist on the neck and hands, and also on the thighs, legs, and dorsum of the foot, but there are none on the face. He has had a quieter night, and takes his support better.

23rd.—Much the same. Still only partially conscious; tongue dry and brown; has had a quiet night, and has slept well. The eruption is still fully out, and much as before. The bowels have not been acted upon, but he has made water. Pupils rather small, and conjunctivæ slightly injected; pulse 108; some tremor of the hands.

24th.—He is still very difficult to arouse, and continually mutters to himself. The pulse 100, very feeble: skin cool and dry. He cannot be got to protrude the tongue, but there are dark sordes on the teeth. There is much tremor of the extremities and body generally. The bowels have been twice acted upon, and the stools are not relaxed. He has throughout his illness been conscious when he passes his evacuations. He slept fairly last night, and takes a fair amount of support. The eruption is less distinct, and is entirely livid, and unaffected by pressure.

To add ʒss. of tinct. cinch. co. to each dose of the mixture, and to take two glasses of brandy daily, in addition to the wine.

25th.—Still very torpid and prostrated. He can be got to protrude the tongue, and it is dry and brown; and there are sordes on the teeth. Pulse 92, very feeble; hands livid, cool, and tremulous. The eruption is very pale; skin dry and harsh; bowels not acted upon since yesterday. He has a slight cough; slept well last night; has not taken his food so well.

27th.—He is much more intelligent, and is generally improved in appearance. The tongue is moister at the sides, but still continues brown above, and it is chapped. He speaks rationally when addressed, but his voice is so feeble and husky that it is difficult to understand what he says. He is not, and has not been, at any time materially deaf. Pulse 72, of better volume and power. Hands still livid and tremulous. The eruption is entirely gone, but there is a scurfy, papular eruption on the abdomen; the bowels are relieved twice in twenty-four hours, and the stools are natural. He has slept and taken his food well.

29th.—He continues more intelligent, and his appearance is altogether better. He speaks readily, but still very unintelligibly. The pulse is 64, and fair strength. The tongue is cleaner and less dry, and is chapped on the dorsum. The hands are still livid and tremulous. He sleeps comfortably, and takes food well. The abdomen is covered by small spots, which are elevated; and there is a slight desquamation. Bowels not acted upon in the last twenty-four hours.

31st.—Improving in appearance, and gaining strength. Tongue clean at the edges and moist all over; but with a thick, white fur on the dorsum. Pulse 72; hands warm, and less livid and tremulous. Bowels acted upon once daily. Skin dry, and slight desquamation.

To discontinue the ammonia and bark and take the mist. cinch. c. acid. ʒj., quinæ disulphatis gr. ij., tinct. cinch. co. ʒj., ter die. To reduce the brandy to one glass.

April 2.—Tongue white, but moist. Pulse 96, feeble. Skin, moderately warm and moist on the chest, and abdomen still harsh and dry, and desquamating. He speaks rationally, but still in a feeble, raucous voice. Bowels acted upon twice in twenty-four hours. Gaining strength daily.

4th.—Still improving. Tongue becoming clean, but some fur towards the root. He speaks more audibly and distinctly. Pulse 64. Skin harsh on the abdomen. Bowels acted upon regularly once or twice daily. Sleeps and takes food well.

9th.—Convalescent. To get up. Wine two glasses; mixed diet.

This case affords an example of severe typhus fever; without, however, any material complication. Its origin in contagion was distinctly traced. The precise period of the disease at which the patient was admitted was not clearly ascertained; but it was probably on the fifth or sixth day. The eruption was then coming out. At first the eruption was more discrete, and consisted of more distinct spots than usual; but subsequently it assumed the characteristic typhous form. The eruption was scarcely to be seen on the eighth, and it had nearly disappeared on the tenth day from admission, or, probably, on the fifteenth or sixteenth day from seizure. The disappearance of the eruption was followed by the occurrence on the abdomen of spots much resembling sudamina, but without any fluid; and this was succeeded by slight desquamation of the cuticle. The patient was convalescent on the twenty-third day from admission, or the twenty-eighth or twenty-ninth day from seizure; and was discharged on the thirty-seventh day from admission, and on the forty-second or forty-third from seizure.

ORIGINAL COMMUNICATIONS.

CASE OF ACCIDENTAL POISONING BY THE CHLORIDE OF ZINC.

By F. CORNELIUS WEBB, M.D. Edin.

Since the introduction of chloride of zinc as a disinfectant, several accidental cases of poisoning by that agent have been recorded. Two are by Dr. Strettan, in the *London Journal of Medicine* for March, 1849; one by Dr. Letheby, in the 33rd volume of the *Transactions of the Medico-Chirurgical Society;* and two are published in the *Association Medical Journals* for November 24, 1854, and August 10, 1855. The *Medical Times and Gazette* of some weeks since also contained a notice of an inquest on a fatal case which occurred in Cheshire.

The following is a report of a similar accident, in which, however, the treatment pursued was followed by a favourable result.

On the evening of the 16th of April, 1854, I was called to Mr. W., who had by mistake swallowed about a fluid ounce of undiluted Burnett's disinfecting fluid, (strong solution of chloride of zinc,) supposing the bottle to have contained Dinneford's solution of magnesia. I found him suffering from intense pain, referred to the epigastrium; the surface was cold and wet with clammy perspiration, the pulse very small and rapid, and he was making constant efforts to vomit. Before my arrival an emetic had been administered, which seemed to have operated pretty freely. He had taken the poison immediately after a full meal, and to this circumstance the favourable termination of the case may be partly attributed. The action of the emetic was encouraged by copious draughts of warm water, and large quantities of the white of egg and sesquicarbonate of soda were administered at short intervals. As the case seemed very precarious, I obtained the assistance of Mr. Robarts, of Great Coram-street, who proposed the subcarbonate of soda in preference to the sesquicarbonate, which was given. My friend, Dr. Cockle, also saw the patient. His pain was of the most agonizing description, the vomiting constant, and the general failure of the powers of the circulation marked.

After we had become tolerably certain that the stomach had been completely emptied and washed out, and after he had swallowed a large quantity of white of egg and milk, we placed him in bed; and by stimulating applications to the abdomen, and heat to the extremities, obtained a partial restoration of the circulation. His vomiting and pain continued, and in the matter vomited blood began to appear, which increased in quantity until for some hours he vomited little else than blood of a dark colour. A mixture, containing hydrocyanic acid, bicarbonate of potash, and Battley's solution of opium, was prescribed; but he continued the whole of the night in extreme agony, and distressed by constant retching. Towards morning he fell into a short sleep, and awoke somewhat better, but still in great pain. Reaction had now set in, and the treatment principally consisted in the application of leeches to the epigastrium, followed by hot fomentations, and the administration of hydrocyanic acid in effervescing draughts. His diet was ordered to be of the blandest kind, and entirely liquid. My patient, a young man of spare habit of body, but who had previously enjoyed a fair share of health, gradually recovered. Many weeks, however, elapsed before he lost all his symptoms: dyspepsia was immediately produced by taking solid animal or stimulating food, and about three months passed before he was quite well. It was curious that the mouth and fauces exhibited no marks of corrosion or inflammation. He had tossed off the poison in joke, intending to take a dose of the fluid magnesia which was used by an invalid lady with whom he was residing, and had, I suppose, managed to throw it down the gullet without its touching the surrounding mucous tissue. The same thing occurred in a case related by Dr. Willis in the *Association Journal.*

I am inclined to attribute recovery in this case mainly to three circumstances:—First, to the fact that the stomach was distended by food at the time the poison was taken. Secondly, to the prompt administration of the emetic. Although vomiting is produced by the chloride, yet I cannot but suppose the emetic to have been of great service, as until it was taken the efforts caused by the poison had failed in producing complete evacuation. Thirdly, to the uninjured state of the mucous membrane of the mouth and fauces, which offered no impediment to deglutition. In the case of the child reported by Dr. Letheby, the inner surface of the lips and mouth presented an opaque white appearance, aud the fauces were so swollen and constricted, that little or none of the antidote (solution of albumen), administered by the gentleman in attendance, passed into the stomach.

The chloride of zinc is one of the most active irritant poisons known. It differs, as Dr. Letheby has shown, from the other soluble salts of zinc in immediately and firmly coagulating liquid albumen, and the tissues of the animal body. When swallowed, it produces instantaneous vomiting. From his experiments it would also appear that the secondary action of the poison is mainly exerted on the motor and organic systems of nerves, its effects being denoted by acceleration of the breathing and pulse, paralysis of the hind limbs, and dilatation of the pupil. These are followed by coldness of the body, deep and laborious respiration, total prostration of all the vital powers, and death.

Similar effects have been observed by Orfila and others in poisoning by the sulphate. Of the six cases referred to at the commencement of this paper, three were fatal, and I believe others are recorded. It is worthy of remark that several have arisen from the substitution of the disinfecting fluid for fluid magnesia. Any one who will observe the general resemblance existing between the bottles in which these preparations are sold, will not only fail to wonder at such occurrences, but will anticipate their repetition. It is surely to be demanded, that some palpable and striking difference should distinguish that in which so potent a poison is contained.

39, Great Coram-street, April, 1856.

ON SOME POINTS CONNECTED WITH PALMER'S TRIAL,

AND REASONS AGAINST THE THEORY ADVANCED TO ACCOUNT FOR THE NON-FINDING OF STRYCHNIA IN COOK'S BODY.

By THOMAS NUNNELEY, F.R.C.S.E.

At the trial of Palmer, a theory was (so far as I know, for the first time in a Court of Justice) started to account for the non-finding of strychnia in the body of Cook, whose death had been occasioned, it was asserted by the same parties, by strychnia administered to him by Palmer in the form of two pills: the theory being that strychnia in killing disappears, and is itself destroyed; consequently that when its presence has been or can be detected by chemical analysis after death, it is not that portion which has destroyed life which can be found, but that which remains in excess, and in reality has been innocuous. This notion is widely different from that which accounts for the non-finding of a poison where

death has been long delayed, and the disappearance is explained by the absorption of the whole of the poison from the stomach and intestines, and its removal out of the body by means of the secretions, a fact which is well known to occur in the lapse of time, but which could not have taken place in Cook. In him there had been neither vomiting, purging, nor passing of urine, so that the strychnia could not have been got rid of in any of these ways, and the form in which it was alleged to have been administered, as well as the time which (although longer than any properly authenticated case of strychnia poisoning) was much too short to allow of the supposition of the whole having been absorbed and eliminated, even had the witnesses admitted it was absorbed, for there was nothing advanced by them to show that they really were aware that strychnia does enter into the blood or could be discovered in it.

At the trial I dissented from this idea, and was prepared to give my reasons for so doing, but I was stopped by Lord Campbell, who, though he had heard the one opinion, was unwilling to hear reasons which I believe to be conclusive against it. * * * * * *

I now forward to you for publication those reasons drawn up rather more fully than in the hurry of the trial I was prepared to give them; but still substantially the same. Supposing, however, it were proved to be true, and it was only ventured to be given as a theory, that strychnia does so become decomposed, how utterly improbable is it that in any given case the dose could be so adjusted as precisely to kill the person and itself at the same time. No calculation could effect it once in a thousand times, even after experiment had demonstrated the precise quantity requisite in one particular instance; because in no two cases could the same conditions be found to exist, varying, as they must do, with so many uncontrolable circumstances as to render the experiments different; either the dose would not be sufficient to kill, or it would be too great, and some strychnia would be unconsumed; such would inevitably be the case in the hands of an experienced, clever, scientific experimenter; and, I ask, what probability is there in the supposition, that William Palmer was possessed of this knowledge, when no one of those who deposed to the theory, nor any scientific man in the whole world, dare to assert that he possessed it and could do it? No. Depend upon it such matters are of far too abstruse and recondite a nature to be accomplished by horse-racers and professed gamblers, though a portion of time in youth have been spent in nominally walking the Hospitals, where it is asserted the only remarkable thing observed in the conduct was a steady and systematic neglect of all study. Whatever William Palmer was, he was not clever enough for such a feat. If Cook died of strychnia, depend upon it the not finding it did not depend upon any extraordinary skill in William Palmer, but in the want of skill or proper care in others, whose after-thoughts are intended as a cloak to hide primary and fatal faults, if such were committed.

The very form in which strychnia was alleged to have been given—pills, was just that to render its detection the most easy, and it was itself one of the grounds mainly relied upon to account for the discrepancy in the development of the symptoms from every satisfactorily authenticated case of strychnia poisoning; viz., that it would undergo such slow solution, and hence its effects would be delayed, forgetting, if so, that in a corresponding degree it would be retained in the stomach as strychnia, and there ought to have been found, with less than the usual difficulty. If this slow solution retarded poisonous action, it must necessarily equally retard its disappearance. Such, and many other, contradictions will become more and more apparent when the lapse of time has allowed rash assertion and strong prejudice to pass away, and to permit a calm review of the Medical and physiological features of the case. It will then be seen whether the verdict of science shall be in accordance with that of the Court, and whether the obloquy which the virulent Attorney-General flung so freely at those who spoke from extended and varied experiment, carefully and laboriously carried on during many years, with no other object than an honest determination to arrive at the truth, ought not rather to attach to those witnesses for the prosecution who, instead of facts founded upon observation, ventured to give mere theories as evidence which should take away a man's life, when they really knew so little upon the subject. I think it better for society, and more in accordance with the spirit of our laws, that a guilty man should escape punishment through a modest confession of doubt upon intricate and new questions, than that an innocent one should be convicted on any evidence, or even one that is really guilty, upon bold assertion, which may very probably turn out hereafter to be false. One such conviction does more to shake men's confidence in the judgment-seat than the escape of ten guilty men from the want of conclusive evidence. Let a murderer be hung, but in God's name prove him to be one on his trial, and don't disgrace humanity by employing a chaplain in a gaol to torment the last moments of a miserable wretch, in importunities, without ceasing, in the name of religion, to confess to a crime, and to supply that evidence which such conduct only proves the consciousness in the authorities and the public is wanting to justify the doom. At any rate, I feel quite easy in leaving the question, as to the truth or falsity of the statements I made, and which I am quite prepared to again repeat, as to the unusual period in the development of symptoms after the alleged ingestion of strychnia, the difference in them when developed from those known to have been exhibited after large doses of strychnia, the flaccidity of the muscles at and immediately after death, the post-mortem appearances of the body when death has occurred during the convulsions, the persistence of strychnia and non-destruction of it by ordinary decomposition of the body, the finding of it in the blood and viscera, the delicacy of the tests and their certainty, the absolute falseness of the assertion of the similarity of the action of pyroxanthine and strychnia, as regards tests, and also the hypothesis invented to account for the non-finding of strychnia, the correctness of which I denied, and for which I now give my reasons to those of my Profession who will hereafter take the trouble, and doubtless many will, to investigate the matter.

So far from the evidence given on the trial being satisfactory to my mind, as proving that Cook died from strychnia and no other cause, I believe I could name more than one poison the effects of which I have seen in the human subject, or have administered to animals, to the action of which I should be more inclined to attribute the death of Cook, supposing him to have been poisoned, than I should to that of strychnia; that is, if we are to be guided in such inquiries—as I conceive we invariably ought to be, but which certainly was not done on this trial—by the usual and ordinary known effects of substances; in seeking a knowledge of an unknown thing to argue from the general action of that which is known, and not from the exceptions to it. From a pretty extensive exhibition of many of the organic poisons, I have arrived at the conclusion that there is a closer identity in the essential action of several of them than is generally supposed: the symptoms during life and the post-mortem appearances not being so characteristic of their individual action as not easily to be confounded by those not conversant with the subject; and, therefore, that, failing the discovery of a poison, which, like strychnia, is one of the most easy to recognize, the greatest care is requisite not to arrive at an erroneous conclusion.

1. That though alimentary and nutritious substances undergo decomposition in the act of digestion and assimilation, it is a property characteristic of them, and certainly does not belong to such comparatively simple and fixed substances as strychnia, which is taken up from the alimentary canal unchanged in its composition, and may be obtained from the different structures of the body in its original condition, which, were it digested, could not be. Nux vomica is digested; strychnia is absorbed.

2. The change in alimentary substances takes place in the stomach and intestines, and, in fact, constitutes the act of digestion. If this act be not duly performed, then some of the principles of the food may escape digestion, and be taken up unchanged into the blood like strychnia.

3. Many substances, both elementary and organic, are taken up from the skin, the lungs, and the serous membranes, as well as from the alimentary canal, into the blood, and are passed out of the body unchanged, or not destroyed, by the various secreting organs.

4. That strychnia and analogous substances act in the same manner whether taken into the stomach by the mouth, applied to the naked skin, put upon a raw of vesicated surface, placed in the areolar tissue, thrown into the serous cavities, injected into the blood-vessels, or applied directly to the nerves, spinal cord, or the brain, showing conclusively that when swallowed they are not digested in the stomach.

5. That it is contrary to the well-known and recognized

action of all poisons, which action does not depend upon a chemical change, except where they leave behind local traces in the part to which they have been applied, as in the case of corrosive poisons, which produce their deleterious effect by changing the composition of the part; and, in acting upon it, are themselves acted upon; or in the irritant poisons, which act locally as irritants, causing inflammation and its sequents.

6. That if strychnia and other alkaloids undergo decomposition in acting, they must, at the same time, produce a corresponding change in the composition of the tissues upon which they act, of which there is no evidence whatever.

7. That strychnia, as well as other organic substances, in whatever way they may be introduced into the system, are to be found unchanged in the urine, in the liver, the spleen, and the other secreting viscera, and pass unchanged out of the system in various ways, as by the secretions of the lungs, the liver, or the kidneys. This fact has long been admitted with regard to many bodies, and though denied as regards strychnia, by some witnesses for the prosecution in Palmer's trial, it has now been so frequently proved by the analyses of some of the most eminent Chemists as to be beyond any doubt whatever.

8. That there is no reliable experiment which shows that an animal may be killed by strychnia, and none found in some parts of the body.

9. That though strychnia may pass out of the body, it is not peculiar to strychnia, but part of a general law, applicable not only to the organic poisons, but to the metals also. For it to take place some considerable time is requisite, and it does not prove decomposition of the substance, but only removal of it by the secreting organs, in the products of which it may be found; and, if it be wholly removed, then no poisoning has occurred—death does not result from the direct action of the substance.

10. Even were it admitted that the whole quantity of strychnia or other alkaloid taken into the body does not pass out of it by the secretions, but that some portion of it is changed within the system, in the absence of any proof of such change being induced by or in any part of the medullary substance, probability would much rather be in favour of the supposition of the change taking place in the course of the circulation of the blood, as through the lungs, where, possibly, oxidization may occur, when certainly no symptom of sudden poisoning could result from so slow a process in a viscus upon which strychnia has no peculiar action.

11. That some of the alkaloids, and especially strychnia, are very permanent compounds. Strychnia is not destroyed by the strongest mineral acids. Sulphuric acid, which destroys most other vegetable and animal matter with which it may be mixed, only enters into union with it, and thus affords an opportunity of recovering it again pure and unchanged. So far as we know, there is nothing in the human body likely to have a decomposing action upon strychnia.

12. It would involve the proposition that strychnia, in causing the characteristic symptoms of strychnia, ceases to be strychnia.

13. It would also involve the proposition, that from the absence of strychnia its previous presence is proved, there being at the same time no demonstrable trace of its having been present.

[We have published Mr. Nunneley's letter this week, deeming the subject of which it treats to be one of pressing public importance; but we cannot approve the spirit or the taste which appears to have dictated some of the passages. It is only right to add that the proofs have not been revised by Mr. Nunneley, as the time has been too short to enable us to transmit them to him.—*Ed. M. T. and G.*]

The late Dr. John C. Warren, the Nestor of American Surgery, who died at Boston, May 4, in the 79th year of his age, left in his will peremptory directions for the disposal of his body. He directed that after the body had remained twenty-four hours, arsenic should be injected into the veins. At the end of the next twenty-four hours funereal ceremonies were to be performed, and the body deposited beneath St. Paul's Church for twenty-four hours, after which it was to be anatomically examined regarding certain peculiarities he supposed to exist. After this the flesh was to be removed; the bones macerated, wired, and deposited in the College Museum.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

CASES OF SEVERE INJURIES TO THE ELBOW-JOINT.

(*Additional to the Series concluded last week.*)

The particulars of the two following cases were not in hand when we concluded the series, to which they properly belong. They are, however, too important to be omitted.

GUY'S HOSPITAL.

Case 13.—COMPOUND FRACTURE OF THE OLECRANON—DESTRUCTIVE INFLAMMATION OF THE ELBOW-JOINT—FREE INCISIONS—RECOVERY.

(Under the care of Mr. COCK.)

Samuel Jolsan, aged 20, a tall, stout carman, was admitted on June 9, 1855. His right elbow was most acutely inflamed, and, together with the forearm and hand, enormously swollen. There was a wound by the inner side of the extremity of the olecranon, from which a thin pus, seemingly mixed with synovia, was discharging. The olecranon was fractured across, but not much separated from the rest of the ulna. He was in a state of high fever, and had suffered intense pain in the part. This condition of things had resulted, he said, from an injury received in a fall two weeks previously. At the time no serious mischief was believed to have occurred; there was a small wound which bled very freely, but the surgeon who dressed it told him that no bone had been broken. Strapping was applied to the wound, and during the first week, although in some pain, he went about as usual. During the second week, the pain having gradually become very severe, he attended as an out-patient at Guy's, and the condition getting worse and worse, he was at length recommended to seek admission. He had previous to the accident been in good health, but was accustomed to drink porter freely.

Mr. Cock ordered him to be confined to bed, and, as it was evident that the joint was already involved in acute inflammation, a large poultice was ordered to the part. During the following month the man remained very ill. Abscesses formed in and around the joint, and free incisions were required and practised. The discharge was very profuse indeed, and the swelling of the forearm very great. By degrees, however, the inflammation subsided and healing took place. On September 18 (nearly four months from the date of the accident) he was allowed to leave his bed, the arm being carried in a sling, and a poultice still kept over the elbow. In the first week of October he left the hospital, the healing of the wounds being nearly complete, and himself rapidly recovering his health. There was reason to fear that his elbow would be nearly, if not quite, without motion, but it was nearly at a right angle and in a useful position.

July 13, 1856.—The man has at present as useful an arm as is compatible with a stiff elbow. He has been at work from about a month after leaving the hospital, all being soundly healed.

The following are some practical remarks made by Mr. Cock respecting the treatment pursued in the above case previous to the man's admission:—

There is no practice more common or more to be reprobated than the plastering up of contused or lacerated wounds. Indeed we should always be careful how we "plaster up" any wound. Facility should always be given for the tumefaction, which is a necessary consequence of the inflammation resulting from such wounds, and no hindrance should be afforded to that exudation which exercises so salutary an influence in unloading the cellular tissues. Innumerable fingers, many limbs, and even lives have been sacrificed to the plastering up at a doctor's shop. If it is necessary to give support and bring into contact parts which have been separated by contused and lacerated lesions, this may be always efficiently accomplished by strips of lint or wetted linen, judiciously applied, after the fashion of plaster, around the limb. This may be kept moist and easily changed without disturbing the parts. It easily adapts itself to the swollen, altered condition

of the limb, and encourages rather than represses secretion and exudation. An easy and raised position, and one affording general support, is also a most important feature in the treatment of these cases.

ST. THOMAS'S HOSPITAL.

Case 14.—COMPOUND FRACTURE OF THE OLECRANON, WITH FRACTURE OF THE ILIUM—DESTRUCTIVE INFLAMMATION OF THE ELBOW-JOINT, AND EXFOLIATION OF BONE—RECOVERY.

(Under the care of Mr. SOLLY.)

Henry Pinder, aged 22, waiter, was admitted into George's Ward, on December 7, 1852, with compound fracture of the olecranon, and fracture of the anterior superior spinous process of ilium, occasioned by a fall.

The olecranon of the right arm is broken into three pieces, and a very small wound communicates with the fracture. He complains of great pain in the lower part of his back, but the pelvis does not appear injured, otherwise than above mentioned. Tinct. opii ℥xxv. h. s.; pulv. rhei. c. cal. ʒss. h. o. s.

December 8.—Has been placed on Earle's fracture-bed to prevent the pelvis being disturbed, and has a straight splint on the arm. The elbow is considerably swollen, and a little blood is still oozing from the wound. Tinct. opii ʒss. h. s.

9th.—Passed an uneasy night, the pain in the elbow keeping him awake. To repeat the opiate at bedtime.

10th.—The elbow being much swollen, and very tense both above and below, the wound was opened freely at the back of the joint, the incision passing through the original wound. A considerable quantity of thin pus and blood escaped. He has no appetite, and complains of the pain from the fractured ilium keeping him awake at night. Bowels are freely open, and he has no difficulty in passing his urine. A large poultice was ordered to be applied to the elbow. Porter Oiij. quotidie; cal. gr. ij., opii gr. i. statim.

11th.—Slept a little better last night. The appearance of the arm is slightly improved, not looking so inflamed. There is a discharge from the wound of unhealthy-looking pus. Appetite improving. Rep. opii ʒss; wine ʒvi.

12th.—Rep. opii.

13th.—Rep. opii o. n.; two eggs daily.

14th.—The arm continuing tense and inflamed, Mr. Solly made a free incision above the elbow, and gave vent to a quantity of ill-conditioned pus.

22nd.—Quin. gr. ij. quotidie; slice of meat.

About the end of December a piece of bone (part of the olecranon) was removed from the wound at the back of the joint; it was about half-an-inch long; and together with it several smaller fragments were taken away. Was ordered a mutton chop daily.

About the 1st or 2nd of January another abscess was opened, which was situated just above the external condyle. From this a considerable amount of fetid pus escaped; and again, about a week later, another abscess of considerable size formed directly in front of the joint, which was opened by a free incision in a vertical direction. It contained a good deal of pus of the ordinary character.

The constitutional disturbance during all this time, since his first admission, has been considerable. He has been restless and uneasy from the pain in the elbow, and has not been able to sleep at night without the assistance of opium. Since the last abscess was opened, and indeed for a few days before that, there has been a gradual improvement. The constitutional symptoms have disappeared, and no more matter has collected about the joint.

Jan. 27.—All the wounds have healed up except the one on the posterior surface of the joint, which, however, is almost closed. There is some enlargement and thickening about the joint, but no redness or tenderness; there is at present a poultice applied, and the arm is placed on a pillow. The spinous process of the ilium has firmly united. He had been lying on a fracture-bed so that he might not be moved, but two days back he was moved to the ordinary bed. Appetite good; bowels regular; tongue clean; sleeps well; still takes the opium; pulse quiet.

28th.—Wine ʒij. was omitted, and also poultice.

31st.—Opium omitted.

Feb. 2.—Out of bed for the first time.

A week after the last date the wounds had quite closed. A few weeks later the patient left the hospital. The elbow had but very little motion, and was at an angle of 120.

COMMENTS.

The remarks with which we concluded the series last week, went to show that the man who sustains a severe injury to the elbow, laying the joint freely open from behind, comminuting the bones, and necessitating the removal of the articulating extremities, is more fortunate than he who recives merely a fracture of the olecranon with a small wound of the skin. The two cases now added fully support this conclusion, since in both the patient recovered only after a severe illness and with a stiff elbow. In all the cases we have mentioned in which the joint had been freely laid open, and the articular ends of the bones been taken away at the time, not only were the constitutional symptoms much more slight, but the patients had afterwards good motion in the joint, (see cases 3, 4, and 6, and the two mentioned by Sir A. Cooper.) In not one of those on the contrary, in which distinctive inflammation of the joint ensued upon a slighter form of injury, did any material amount of mobility remain. To excise the joint because a compound fracture of the olecranon had been sustained, would of course not be warrantable. It is very possible, not to say probable, that the wound may heal, and the bone unite without the occurrence of articular inflammation. With such facts before us, however, as have just been detailed, the question does seem worthy of serious consideration, whether after acute inflammation has already set in, as the consequence of injury, and the destruction of the joint seems inevitable, it would not be good practice to at once excise the ends of the bones; with the double hope of saving the patient's constitution, and of gaining him a mobile joint.

THE LONDON HOSPITAL.

GREAT DEBILITY ASSOCIATED WITH A YELLOWISH-BROWN STATE OF SKIN—DEATH—AUTOPSY—DISEASED SUPRA-RENAL CAPSULES.

(Case under the care of Dr. GIBBON.)

[In the subjoined case, the discoloration of the skin was sufficient to lead to a diagnosis of diseased supra-renal organs; it did not, however, amount to a true bronzing. The disease found at the autopsy had only partially destroyed the organs, and was of such a character as might have been supposed to be in all probability of recent origin. The case is thus, as far as it goes, confirmatory of Dr. Addison's views.—J. H.]

The following narrative is from the pen of Dr. Gibbon, under whose care the patient died:—

Edward Duncan, aged 52, a cabman, was admitted into the London Hospital, February 8, 1856, under the care of Dr. Parker, when the clinical clerk made the following notes:—His parents died at an advanced age; their other children are all well; the patient has four children, all in good health; he has been ill and getting worse during the last six months. Complains of general weakness, loss of appetite, some cough, but no pain; he has not had bowel complaint or night sweat; is somewhat thinner than usual; expectorates only a little mucus; skin yellow; cool, and moist; sleeps a great deal, but awakes easily and completely; respirations 24; left side of chest expands most freely, and on the right the vocal tremor is most distinctly felt, with prolonged expiration and some crepitus at the posterior part; pulse 94, soft and weak; heart sounds normal; bowels costive; tongue slightly coated with white fur. No tenderness on pressure of abdomen; urine clear, no deposit, sp. gr. 1022; acid, no albumen. A variety of tonics were given, but none had the desired effect. He grew weaker and weaker. Had an attack of diphtheritis of the mucous membrane of throat and fauces. When I first saw him and took charge of him a week before his death he was in a low typhoid condition, and was reported to be phthisical. After a most careful examination, I could detect no physical signs of disease, the symptoms most resembled those of typhoid fever, but the symptoms indicating the cerebral oppression always present in continued fever were absent. From the anæmic condition, and the yellow-brownish appearance of the skin, which did not extend to the sclerotica, I guessed he had disease of the supra-renal capsules. Steel was given him as well as a very liberal diet, but he died from exhaustion.

Post-mortem Examination.—Skin universally of a yellowish colour; no spots or blotches in the armpits. Great emaciation. Blood fluid in the heart and arteries. The lungs, heart, liver, spleen, and kidneys were healthy. The suprarenal capsules were both of them of more than normal size, and when laid open were seen to consist of mere membranous bags, in the interior of which were shreds of disintegrated tissue. In the right a thin lamella of healthy cortical structure still existed in parts, but in the left the tissue of the organ appeared to be wholly destroyed.

THE PROVINCIAL
PRACTICE OF MEDICINE AND SURGERY.

LIGATURE OF HÆMORRHOIDS — DEATH FROM PERITONITIS (PYÆMIA?) ON THE EIGHTEENTH DAY.

The following is one of a class of cases which but rarely find their way into print. They are, nevertheless, we fear, of not very infrequent occurrence, and are of great importance to be borne in mind by all practical Surgeons. It happened recently in a Provincial Hospital, and its particulars have been furnished to us from a most authentic source, but with the request that no names might be mentioned:—

John H., aged 68; admitted November 16. Has had piles for many years, and at times suffered considerable inconvenience from them. On two occasions they have become very painful, and he has passed blood; the last time this occurred is three months ago. He has several old piles, which are covered by a tolerably natural skin; and, besides these, there are several others rather inclined to inflame, and which are of more recent formation, perhaps twelve months.

22nd.—One tolerably large and old pile was tied, the patient not being under the influence of chloroform; and, as he seemed so pained by it, the others were deferred being operated upon for the present. He went on pretty well, but complaining of great pain; the strangulation of the pile was complete, and in three or four days it was quite black and flabby, and very offensive.

27th.—Had a very severe rigor, lasting for four hours in the afternoon; was seen by the Surgeon on duty; face pale; pulse small, and very irregular; extremities cold; tongue clammy, and feels dreadfully sick. Ordered: Hot brandy-and-water, and turpentine stupes, with hot flannels to stomach. The sickness, however, continued all night, and nothing remained on the stomach, neither medicine (æther and ammonia) nor brandy.

28th.—Had another short rigor, and still continues sick; does not seem so depressed; pulse better; no tenderness in belly, but great pain; tongue coated with yellow fur, clammy.

After the 28th he was able to retain the brandy on his stomach, but nothing else. He seemed to get weaker, though he had no further shivering, and no sweating till two or three days before death. He had no diarrhœa, and no tenderness in the abdomen, and no pain, only when sick. He began to have cough on the 28th, but without expectoration; and auscultation detected nothing wrong. He got lower and lower, as if in fever; tongue brown, and dry; sordes on teeth; pulse weak and irregular; wandering delirium in the night. For two days before death he was constantly troubled with a loud and most distressing hiccough, for which he took æther and laudanum, but with no good effects. He died on December 4.

Post-mortem, twenty-six hours after death.—Top of right lung adherent by old adhesions, the result of old tubercular condition. Apex of left covered over a very small space (perhaps 1 inch square) by tolerably firm lymph, the lung underneath it being solid, and the solidity being determined by a very definite line, but no pus, or the appearance of softening of any kind of inflammatory products. Pus was diffused over the whole peritoneal surface of the liver, intestines, and abdominal viscera. There were no patches of deposit of lymph on any of these organs; but the whole surface of the peritonæum seemed roughened, and very slightly yellow, not shining as natural. The amount of pus laudabile, which had gravitated between the convolutions of the intestines and into the pelvic cavity, would not be less than 8 or 10 ounces. The structure of all the organs healthy. The pile operated on was quite loose, and readily came away. No trace of phlebitis could be found in the vicinity after careful search.

LEEDS PUBLIC DISPENSARY.

STRICTURE FOLLOWED BY SCROTAL ABSCESS—DEATH—AUTOPSY—PERFORATING ULCER OF THE BLADDER COMMUNICATING WITH THE TUNICA VAGINALIS.

(Under the care of, and reported by, Mr. C. G. WHEELHOUSE.)

On the night of December 17 I was called by our House-Surgeon (Mr. F. Holmes) to see a poor boy (Barnet Sands, aged 16), in York-street, who was stated to be very seriously ill.

Mr. Holmes had already seen him, and had found, on inquiry, that the boy had been for some months past in a very failing condition of health, but had, nevertheless, been much in the habit of straying away from home, and would sometimes remain absent for several days. He had returned home only two days ago from such an excursion, and on the present occasion had been away for nine consecutive days and nights, and was supposed to have been wandering about and sleeping in the streets, and had only come home at last when too ill to remain any longer away. The mother stated that for the two days he had been at home the boy had passed no water, had seemed in severe pain, and had been gradually becoming worse and worse. On turning to the boy he was found to be unconscious except when very loudly spoken to, and immediately relapsing again into a state of stupor, so that no connected account could be obtained from him to fill up the deficiencies in that given by the mother.

On examining the abdomen the bladder was found greatly distended, reaching as high as the umbilicus, and apparently exceedingly tender to the touch, inasmuch as the hand placed upon it caused the boy to moan very much, and even to scream.

The first step to be taken was, of course, to relieve the bladder, and an assistant was at once dispatched for catheters. On turning to the penis, the scrotum was found to be also greatly distended. The enlargement of this organ was confined to the left side, the right being in a normal condition. On the arrival of the catheters it was found that no instrument, either medium-sized or small, could be insinuated along the canal of the urethra for more than a couple of inches, and it was on this account that Mr. Holmes had requested that I would see the case.

I found the boy pale, cold, and comatose, and evidently in a dying condition: cold, clammy perspiration bedewed the surface; the eyes were sunken and rolled up beneath the upper lids. Respiration short, hurried, and restrained. Heart's action exceedingly feeble; no pulse at the wrist. Abdomen tumid and hard; recti muscles firmly contracted; the bladder had risen out of the pelvis, and presented a large circumscribed tumour reaching to the umbilicus. Scrotum also greatly distended on the left side, and containing a large quantity of fluid, as was evidenced by distinct fluctuation; the integument tight, and beginning to assume a gangrenous appearance, cold, mottled, and dark-coloured in patches; the tumour prominent, and a little elongated at its lower part. The areolar tissue of the perinæum, scrotum, penis, and abdominal walls was quite free from anything like infiltration of urine.

I could not rouse the boy sufficiently to obtain an answer to any question, and from the mother I could gain but very little information. She stated that he had been ill for several months, had been in the Infirmary for some disease of the bladder (gravel, she thought); had been somewhat relieved for a time, but never cured; and had continued in this state up to the time of leaving home, ten days ago. When he came home on the present occasion she had found him swollen as I saw, and in great pain, and had sent to the Dispensary accordingly. My first idea was, that, from continued over-distension of the bladder, the urethra must have given way; but the absence of urinary infiltration about the perinæum, penis, or abdominal walls seemed to forbid my continuing to entertain it; neither could I account, on this supposition, for the urine having made its way into the tunica vaginalis, where I certainly suspected it was present. There was, nevertheless, a sense of deep-seated fluctuation about the perinæum; but this, I thought, might arise from distension of the membranous portion of the urethra. I next looked to the hernial region, and though I found that enlarged and tumid, I could

not satisfy myself that there was any communication between the large fluid tumour in the scrotum and that of the bladder in the abdomen; for the next idea that presented itself to my mind was, that the case might be one of "cystocele," that the bladder, besides being enlarged, had also become "pouched," and that such a pouch had, perhaps, made its way into the scrotum through the inguinal canal. But why, under this supposition, was the scrotum becoming gangrenous, since the swelling was only said to have existed for so short a time? and how was it that no communication could be traced between the swollen scrotum and the abdomen?

As it had been found impossible to introduce a catheter, with the scrotum distended as it was, I determined, before making any further attempt, to make a puncture, and thus remove any pressure it might be causing upon the urethra, and at the same time ascertain the real nature of the contained fluid; and choosing a point where the scrotum was thinning, I did so accordingly. The result was a stream of urine: the scrotum and bladder both fell, and the latter organ gradually emptied itself of about three pints of urine, mixed, towards the close of the flow, with some pus. The hand placed upon the abdomen accelerated the flow.

I ordered the boy to take the following draught every two hours, alternately with a little brandy, and desired that I might be informed early in the morning whether he had lived through the night or not. ℞ Ammon. sesquicarb. grs. v., sp. æth. chlor. ɱx., aquæ ad ʒi. M. ft. haust. 2nd. quâque horâ sumend. Death occurred during the night.

Autopsy forty-eight hours after death.—Abdomen fallen, and scrotum reduced to pretty nearly its natural size; no swelling over the inguinal region. I made a careful dissection of the left inguinal canal, and found that no hernial protrusion existed. The spermatic cord and its coverings were in a healthy condition, and on reaching the abdominal cavity there was no evidence of peritonitis having recently existed. The intestines were healthy, and on removing them I found the bladder loose, large, and flabby. I did not lay open its cavity at this stage of the dissection, but turned my attention next to the scrotum. On continuing my dissection down to the lower part of that organ, and removing the fasciæ, I found the tunica vaginalis thickened, and greatly indurated, and on enlarging the puncture that had been made into it more pus was evacuated, and the testis was brought into view. On passing the finger round the cavity of the sac, it was found not to communicate with the tunica vaginalis of the right side, but a large ragged opening was discovered, with firm, tough edges, in its posterior wall, leading into the perinæum. On laying open the perinæal region, the abscess was seen to pass deeply through it, quite to the base of the bladder. In the centre the urethra was observed, as cleanly dissected from all its connexions as if the knife had been used, and surrounded by mixed pus and urine. On attempting to pass a probe along the urethra, its walls were found so thickened and indurated, and the calibre of its canal so contracted, as not to admit of the passage of the instrument. Following the course of the abscess backwards, I traced it to the space between the bladder and rectum, and found it dissecting its way up between these two organs for a considerable distance. There was no communication between the abscess and the rectum. I now laid open the bladder from the abdomen. Its walls were thin, and the mucous membrane presented all the signs of recent and severe inflammation. Patches of ulceration were observed upon its surface, and at the bottom lay a quantity of thick ropy pus. On clearing this away, a large ulcer was seen to pass entirely through the coats of the organ, leading into the cavity of the abscess, and resting upon the upper surface of the rectum. The opening was about the size of a shilling, and circular, with well-defined and rounded edges. Its appearance was altogether very like that of a "perforating ulcer" of the alimentary canal, the piece appearing as if it had been taken out with a punch. Here, then, was a solution of the whole case. An injury, probably of a mechanical nature, as a blow or a fall, had most likely happened at some distant period to the perinæum; the urethra had suffered, together with other structures, and stricture had been the result. This stricture increasing, had given rise to constant distension of the bladder, and inability thoroughly to evacuate its contents; inflammation of the mucous membrane had followed as the result of these causes, and had at many points proceeded to ulceration. Ulceration had been most active at the base of the bladder, in consequence of the continual presence upon the mucous membrane at that point of altered urine which the bladder was unable to expel; the areolar membrane external to the bladder had, meantime, become consolidated by inflammatory exudation, and thus, when the ulcerative process had perforated the coats of the bladder, infiltration was prevented. Abscess had followed, and the combined pus and urine had burrowed through the perinæum, inflammatory exudation and induration preceding it in its course, and consolidating the areolar tissue around it, until it reached the back part of the scrotum. Here, again, ulceration had opened a way for it into the tunica vaginalis, and hence the sudden enlargement of the scrotum. From the presence in the scrotum of the acrid mixture of pus and urine, the testicle had been thrown into a state of inflammation and suppuration, and the integument was about to share in the destructive process.

NOTES AND QUERIES.

"He that questioneth much shall learn much."—*Bacon.*

No. 117.—Colour of the Fæces from the Exhibition of Iron.

Sir,—I have been giving the sulphate of iron and quinine, in the dose of a grain of each and one of ginger, in a pill, with mucilage, twice a-day for a fortnight, and the fæces were as usual black in colour. As an aperient was occasionally required, I substituted a grain of rhubarb for the ginger, since which the fæces have not had the slightest tinge of the iron. Is this usual, and is there any known reason why it should be so? I am, &c. R. C. B.

ANSWERS.

To No. 116.—Fetid Perspiration.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—I think your querist "B." will find relief for his patient in a very simple remedy, viz., in directing that a little olive oil be well rubbed into the feet every night and morning, after free ablution of the parts.

In the ablution, a small quantity of solution of chloride of lime may be added to the water with advantage.

I am, &c.

12, Hinde-street, July 12, 1856. B. W. Richardson.

Sir,—In answer to the Query of B. respecting the best remedy for fetid perspiration from the feet, I beg to inform him that I have found the best effect from bathing the feet every night in a strong solution of subcarbonate of soda.

I am, &c. R. C. B.

Sir,—In your last Number, under the head of "Notes and Queries," No. 116, B. writes for a recipe for fetid perspiration of the feet. I find the following among some old receipts, and it may, perhaps, be worth a trial. I have never tried it, therefore cannot speak as to its efficacy:—

℞ Ung. hyd. fʒj.
Creosote ʒj.
Morph. muriat. ʒss.
Ft. Ung. ter in die applic.

A daily tepid bath; diet, vegetable and farinaceous.

I am, &c. J. Gardner, M.R.C.S. & L.A.C.

Downham, July 15, 1856.

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Medical Times & Gazette.

SATURDAY, JULY 19.

CLASSICS AND MATHEMATICS AT APOTHECARIES' HALL.

From a return which has recently been presented to us, we learn that, during the academical year which has just elapsed, one hundred and sixty-two young gentlemen have presented themselves for examination in Classics and Mathematics at Apothecaries' Hall, in addition to those who have passed the ordinary examination in Celsus and Gregory. The examination in Classics and Mathematics is wholly voluntary, and the only document necessary to be produced by the candidate is a legal proof that he has entered upon the study of Medicine. So great has been the anxiety to pass this ordeal, that youths have come to London from all quarters of the country to submit themselves to the test. Of those who have presented themselves we understand that about one-fifth have failed to obtain certificates; although this failure is rather due to the high standard attained by the majority, than to the absolute deficiency of the others.

To some minds, the fact of a number of boys just entering the Medical Profession submitting themselves to a voluntary Classical and Mathematical examination, may present no striking image; but, in our opinion, the circumstance is pregnant with future benefit to the best interests of our community. Although it would be preposterous to suppose that the power of translating and explaining Greek and Latin authors, or of working out problems in Euclid and Algebra, can form an effectual safeguard against the innumerable evils of which we daily and hourly complain, and which are gnawing at the very vitals of our common prosperity and usefulness; yet there can be very little doubt that a general improvement in the tone of education would tend very materially to elevate our Profession in social position, and to save us from some very lamentable exhibitions on the part of some of our own fraternity. We do not, by any means, advocate the devotion of the Medical Student to classical and mathematical studies during his Hospital career; but we cannot help insisting that no better introduction can be given to the youthful aspirant for Professional fame than a competent education in the works of the ancients, which enlarge the sphere of human sympathies; and in the exercises of logic or mathematics, which restrict the operations of the intellect within definite limits. The perusal of the glowing sentiments handed down to immortality by the sages of Greece and Rome would render the Practitioner no less useful as an Operating Surgeon, no less skilful as an attendant at the bedside of the sick; while the habit derived from acquaintance with the exact sciences would guard the mind from being led astray by the gross absurdities of modern quackery.

In connexion with the present subject, we would offer a few remarks in the way of suggestion to those who conduct the education of the sons of Medical men, as in the school of the Medical Benevolent College, and elsewhere. In the establishment at Epsom, we believe that there are already about one hundred and fifty boys, many of whom will probably embrace the Profession of their fathers. We would recommend those who educate the youth of such establishments to recollect that the Medical Profession is now in a state of transition, and we have every reason to hope we shall witness a higher mental cultivation than was formerly attained. Let the teachers of such schools fix their eyes steadily upon the dawn of better things now beginning to brighten the horizon, and omit no effort to erect so high a standard of general education for the youth of our Profession as shall enable them to assert their rights to respect and consideration on the grounds of high mental cultivation and high moral endowments.

DRAINAGE DIFFICULTIES.

Our readers will pardon us for repeating certain fundamental axioms which, as we insist upon it, must be observed, if any scheme of town drainage is to be carried out efficiently and safely. The town drains should be so constructed, and their size should be so adapted to their contents, that there may be no stoppage nor delay anywhere. The old idea of a drain was that it should be a sort of subterranean edifice of brick, into which sewage matters should go, and out of which they should come somewhere; they were always made large enough to hold the greatest quantity of deposit; and so long as they did not actually overflow, or refuse any passage at all, it did not much signify. Now, however, we know that a drain which admits of deposit is but a cesspool in another shape. We hold that there ought to be no lodgment nor stoppage whatever, either under the houses, or in the streets; but that the sewage matter ought to flow on incessantly to its destination.

But then its destination—where shall that be? This is *the* difficulty of the day. We assert that there is but one mode by which town sewage can be got rid of at all, and that is, by applying it to the land; where it will be at once rendered not only innocuous, but beneficial. As for the plans of emptying it into the sea, as is done at most sea-side towns at present, or of emptying it into rivers, they are filthy and wasteful, and they do not attain the object in view, which is the getting rid of the sewage. Sewage will not be got rid of in that way. It will float up in the noisome vapours that are exhaled from the muddy beach when the tide is low, and in the fogs that rise from the rivers, and will still haunt us like a ghost, till its body has received the rites of sepulture.

A glance at the newspapers during the last ten days will, we think, convince most persons that the drainage question is coming to what our American cousins most emphatically call, a *fix*. Town sewage can no longer be allowed to fester under our houses and streets in cesspools and old fashioned sewers that were constructed rather for holding than for delivering their contents. Then the question comes, What is to be done with it? Turn it into the nearest river is the ready answer of the Local Board of Health, or of their Engineer. And doubtless it is better for any town that it should pass into the river, than that it should remain to poison the townspeople. Salisbury is a town which, as we are informed, has been much benefited by drainage into a neighbouring river. It lies very low, was always notoriously damp, and when subjected to the cholera—that sure test of sanitary conditions—it suffered frightfully. Now, as we are credibly informed, the town is healthier, the houses are incomparably less damp, linen is dry now where it was moist formerly, and above all, the *pumps are dry*. The soakage from the surface, which the inhabitants were wont to drink contentedly under the name of pump water, is drained off. A very significant fact is this.

But the whole common sense of the country is now aroused to the filthiness of polluting the streams by town sewage. It has been stated in the House of Commons that the people of Luton are indignant at the desecration of the River Lea, once a fine clear stream, abounding in fish; now the common sewer of 10,000 inhabitants, with waters black and stinking, in which no fish will live. Other towns have taken legal proceedings against their Local Boards of Health, to stop similar acts of mischief; and, as the crowning example of these ob-

stacles, Sir Benjamin Hall has summarily rejected the scheme proposed by the Metropolitan Board of Works for the drainage of the Metropolis. The ostensible ground of objection was, that experiments, conducted by Captain Birstall, under Sir B. Hall's direction, had shown that the point selected for the discharge of the sewage was one from which it was liable to be floated up into the heart of the City by every high tide; and that, therefore, the conditions of the Act, which required an outfall completely out of the Metropolis, were not complied with. Besides, there was the not unreasonable argument, Why should places within the magic circle of five miles of St. Paul's be protected, and not any places further? If Greenwich or Wapping is not to be poisoned, why should Woolwich or Gravesend? In fact, there would be no end to the reclamations from the inhabitants of every particular place on the margin of the Thames, against discharging the fetid torrent of sewage in that locality. Be the reason, however, what it may, we cannot but rejoice that a still further delay is afforded before this gigantic project can be carried out,—a delay which we sincerely hope may give time for a solution of the difficulties of the question.

That there are difficulties must be confessed. To begin with,—there is the want of use—the novelty of generally applying manure in a liquid state—a novelty hard to overcome with many farmers; and, as we cannot conceive a compulsory use of sewage, we must wait some time till agriculturalists are able as well as willing to try it. But there is another difficulty in the thing itself.

The drainage apparatus of most towns, and of London in particular, is made to do two perfectly distinct things—to take away the rain-water, which was its original and legitimate use; and to take away house-sewage, which is a superadded and distinct function. The mischiefs arising from this combination of functions are palpable.

The general complaint of the farmers is, that town sewage is too dilute. Therefore, to dilute it still further with rain-water is palpably to make it worse. Moreover, it is most dilute in wet weather, when it is wanted in its most concentrated form. Then the flow of sewage is pretty constant and equable. Day by day the amount of closet drainage, soapsuds, and scullery-water from every house is pretty constant, and must correspond closely with the amount of water delivered for domestic consumption by the water companies. It can, therefore, be pretty accurately estimated, and the calibre of the pipes requisite to convey it clean away can present no difficulty. Rain-water, on the contrary, is most uncertain. For a week or ten days there may be none. Then vast torrents may fall in an hour, and subterranean channels must be provided to carry this water away. But the channels which are necessary for the rain are infinitely too large for the sewage, which travels along them in a sluggish stream, depositing its solid contents, and undergoing decomposition as it slowly wends its way.

There is a well-known alliterative aphorism of F. O. Ward's which embodies the whole truth of this question:—"*All the rain-fall due to the river; all the sewage due to the soil.*" That the sewage must go to the soil, is, as we have endeavoured to show, the only destination possible. It cannot remain in towns, and must not be cast into rivers. Out of the very necessity of the case, therefore, it must be committed to the earth, as the only possible way of getting rid of it. The separation of it from the rain-water will, as we believe, remove one great practical difficulty in the application of it; while the flow of rain to the river, by a separate series of conduits, will be vastly beneficial, by adding to the volume of water that passes through London, and so scouring and cleansing the bed of the Thames. There is not one drop of Thames water to spare, and we greatly grudge the vast quantities that are already taken for drinking purposes.

If sewage must still be turned into rivers, we should suggest that it should be compulsory in every case to deodorize it, and drain it of its organic contents, either by mixing it with quick lime, which is, we believe, a patented process adopted at Leicester with great success, or by filtering it through tanks filled with peat charcoal. There should be, of course, two such tanks; one to be used when the other is saturated, and in process of emptying. We believe that this plan has been tried and found to answer, and that farmers are ready purchasers for the charcoal after it has become charged with organic *débris*.

THE WEEK.

We publish this day the case of the four Senior Medical Officers of the late Smyrna Hospital, who complain of something like a breach of faith on the part of the British Government. It appears that Lord Panmure directed a circular letter to be sent to the Governors of the London Hospitals, inviting Medical gentlemen to join the Staff of the Civil Hospitals about to be established in the East, and promising, in addition to pay and allowances for actual services, a gratuity of one year's pay from the date of the termination of their engagement. The four Senior Medical Officers of the Smyrna Hospital, however, were dismissed at the end of November, 1855, and received twelve months' pay, and only three months' gratuity. Of the hardship of this treatment Dr. Leared, Dr. Barclay, Dr. Gibbon, and Mr. Carsten Holthouse not unreasonably complain; and we hope that their case, stated as it is with great force, although with great calmness, will meet with due attention at the hands of the Government.

The Civil Hospital at Renkioi has at length been broken up. Our troops have been removed so rapidly from the Crimea that no further hospital accommodation is required. Dr. Goodeve and Mr. Spencer Wells, the Senior Physician and Surgeon, left on the 1st instant for England, and a vessel was daily expected at that time for the remainder of the Medical staff. Dr. Parkes remains for a short time to wind up the hospital accounts. It is expected that the buildings will be purchased by the Turkish Government.

Richard Dunn, who has gained a general notoriety as the indefatigable persecutor of Miss Burdett Coutts, has at length ventured to intrude his addresses into the sacred precincts of Royalty itself, and he has accordingly found his way again into the courts of justice. He has very properly been regarded as an insane person, and has been brought up before the magistrate at Bow-street as a wandering lunatic. The evidence as to his insanity was quite conclusive, and he is now we hope in safe keeping in one of our asylums. That this unfortunate person's mind has long been in a deranged state must have been evident to all who have perused the newspapers; and it is a striking instance of the laxity of our laws in relation to lunacy, that no steps had been taken to place him in a position where he would have been prevented from doing mischief, until he ventured to address a Royal Princess, and thus called upon himself the interference of the authorities. The distinctions existing between unsoundness of mind and criminality of conduct are, it is true, sometimes drawn with difficulty; but no one who has perused the examination of Dunn at Bow-street can come to any other conclusion than, as we stated in reference to his conduct towards Miss Coutts, that he is a confirmed lunatic.

It is with great regret that we announce the abandonment for the session of the Vaccination Bill, introduced by Mr. Cowper. We have on various occasions expressed our approval of the

Bill, which was drawn up after a most careful consideration of the whole subject of vaccination; and it is lamentable to find that so useful a measure should be dropped in obedience to the clamours of a few ignorant and silly persons. Mr. Cowper, in his speech announcing the abandonment of his offspring, adduced some very cogent reasons why the Bill should be pressed. "A man was not allowed," said the Right Honourable President of the Board of Health, "to burn down his own house, because it would endanger his neighbours' property;" neither, of course, should a man be allowed to propagate small-pox among his neighbours' children. But the reasons for postponing the Bill were among the weakest we ever remember to have heard. "It was stated," he continued, and no doubt he repeated the truth, "*that in no case out of* 40,000 *had any evil consequence resulted*" from vaccination; and, yet, because some foolish persons have asserted that vaccination is the cause of scrofula and rickets, and we know not how many other diseases, Mr. Cowper relinquishes the measure, promising that next session he will move for a Select Committee to examine the whole subject. We wonder that these wiseacres have not discovered that vaccination is the cause of the potato disease and of the Russian war. Dr. Michell, whose absurdities on this and other Medical questions have been conspicuous during the present Session, is reported to have asserted, "that the small-pox, *treated upon the hydropathic principle*, would not, under any circumstances, be fatal to the extent of three per cent." Surely the Reporter must have been dreaming when he took down such observations from the lips of a Member of Parliament, or the latter must have been out of his senses. In the present instance, as in many others, the overwhelming weight of evidence and of statistics is in one scale of the balance, and reckless assertion and besotted prejudice are the light weights which are stuffed into the other.

A few nights since, in the House of Peers, Lord Campbell asked the Lord Chancellor whether the Government intended to take any steps to prevent the sale of poisons. The vending of arsenic has been prohibited by the Legislature, and he wished to know whether it would not be possible to include many other poisons in the forbidden category. It was replied that the Secretary of State for the Home Department had the matter under consideration, and would probably prepare some measure during the recess, but that hitherto it had not been deemed expedient to enumerate publicly a class of poisons, as such a proceeding would promulgate among the vulgar a species of knowledge which it would be more prudent to conceal. The subject is undoubtedly one of difficulty, and as far as strychnia is concerned, no legislative enactment could have prevented the late occurrences which have excited so much notoriety, for it will be remembered that in both cases the poison was not sold, but obtained privately by the murderers. It would also be difficult to define what are poisonous drugs, and what might be sold with impunity: tartar emetic, for instance, can scarcely be called a poison, although by injudicious or felonious administration, it may become the cause of death. Still the subject is a most important one, and deserves the close attention of the Legislature.

REVIEWS.

Nomos: An Attempt to Demonstrate a Central Physical Law in Nature. Pp. 198. London. 1856.

In order to explain the object of this book, we cannot do better than repeat what the author himself says in the conclusion:—

"The object of this work, then, has been to prove that the world of inorganic Nature is ruled by one physical law, and not by several physical laws.

"It has been shown, first of all, that the phenomena of electricity, magnetism, light, heat, chemical action, and motion, which are developed experimentally, are not to be understood, unless they be regarded as signs of one and the same action in ordinary matter. In doing this (among other consequences of the argument), it has been found that we may dispense with the idea of a repellent force in explaining electro-magnetic rotation; that we may find a physical explanation for the so-called repulsive power of heat, and for the retention of magnetism by the loadstone and steel; and that we may discover additional reasons for discarding imponderable agents from the interpretation of physical phenomena.

"Evidence was then adduced for believing that it is not possible to understand the phenomena of electricity, magnetism, light, heat, chemical action, and motion, which are naturally displayed in the world around us, unless they be regarded as signs of the action of the same central law. In this part of the argument:—

"It has been shown that the heavenly bodies will move forwards or backwards in orbits of various eccentricity, and rotate upon their axes, if they are subject to this law; and that they will begin, as well as continue, to move in this manner.

"It has been shown that the tides and the metamorphoses of comets are not to be understood, unless we admit the operation of a law, of which heat is one of the signs,—that the land may have been raised out of the water, and established upon permanent foundations, by the causes which produce the tides and determine the metamorphoses of comets; and that these considerations involve great changes in the geological doctrines at present in vogue, which changes are justified by the geological evidence itself.

"It has been shown that the phenomena of natural light and chemical action, and electricity and magnetism, are only intelligible when they are regarded as signs of the same central law.

"It has been shown, in short, that the inorganic world is ruled by one single law, of whose operation the phenomena of electricity, magnetism, light, heat, chemical action, and motion are only so many signs,—the law, that is to say, which was named provisionally the law of the laboratory,—and that no secret in the world of inorganic nature can be fully understood, except upon this assumption."

Has, then, we may ask, the author succeeded in carrying out his object? Has he succeeded to a reasonable extent, that is to say? We think he has, and this we say although we cannot agree with many things advanced in the book.

In the hands of the author the great doctrine of the correlation of the physical forces becomes a much more distinct and definite conception, and the "central law" which underlies the phenomena of electricity, light, heat, and other so-called physical agents is brought out into clear relief. In this part of the inquiry, also, many things are explained for which before there were no satisfactory explanations, such as the repulsive power of heat, the mystery of the loadstone, and electro-magnetic rotation. Electro-magnetic rotation, indeed, is explained without the aid of a repellent power, and, we think, satisfactorily. In all these points, few will have any difficulty in agreeing with the author, and none in understanding him, for all the facts upon which the theory is built are stated with remarkable clearness and consecutiveness.

With respect to the rest of the volume, we are not able to do more than express a qualified opinion.

The views upon the motions of the heavenly bodies severely try our preconceived opinions. It is no easy matter to bring the mind to allow of any alteration as being necessary here; but we must confess that the explanation of the author is not ridiculous, and that it may have the advantage in simplicity, in comprehensiveness, and in being demonstrable by experiment.

We are free to confess, also, that the author's theory of the tides is more satisfactory than any other, and we are not able to dissent from his explanation of the metamorphoses of comets. We will also confess our partial belief in the theory of the internal heat of the earth, and of the elevation of the land out of the waters in the many revolutions of the earth; but we cannot agree with the author in thinking that the number of these revolutions and their duration have been greatly exaggerated by geologists in the present day, and we do not think it at all necessary to the argument that it should be so.

As a whole, however, we have no hesitation in congratulating the author upon having produced a book which cannot fail to awaken and direct inquiry in physical philosophy, and which ought to be in the hands of every student of nature.

Journal of Public Health; a Sanitary Record. Edited by Benjamin W. Richardson, M.D., Physician to the Royal Infirmary for Diseases of the Chest. No. VI., for July. London.

The fact of our not having noticed previously our new contemporary arises rather from accidental circumstances than from want of sympathy or regard for the objects for which it is established. We have now before us the sixth number of the *Journal of Public Health*, and we feel in the fact of its existence the necessity for such a work. The *Journal of Public Health* is in no way a rival of any other periodical; and it is clear that Dr. Richardson in conducting it is as scrupulously careful as successful in maintaining for it its special and independent character. At the same time it is a very useful work for the Medical Practitioner as well as for the general reader, since it contains a variety of scientific information, having an important bearing on the affairs of daily life and health, not to be found elsewhere.

Among other advantages, the Journal is the official organ of the Epidemiological Society, the Transactions of this Society being regularly published in a separate Fasciculus of each number. Thus the present number contains an Essay contributed to the Society by Mr. Keith Johnson, "On the Geographical Distribution of Disease throughout the Globe," and which supplies, in one admirable article, a complete history of the climatology and diseases of the world.

In the body of the Journal there are other articles of great interest and ably written; and, if we do not endorse all the views they propound, we recognize that they are conceived in a generous and progressive spirit.

To all who hold with the motto which Dr. Richardson has stamped on his work, "*National health is national wealth,*" we heartily recommend the work itself.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

LLANDOLFI'S TREATMENT OF CANCER.

M. Landolfi's mode of treating cancer having gained considerable notoriety in Austria, he repaired some time since to Paris, in order to induce the Surgeons of that capital to indorse the favourable opinions expressed by some of the Vienna practitioners. The French Hospital Surgeons accordingly appointed a committee of their body to examine into the stability of the claim, and this was done by assigning to M. Landolfi a certain number of patients at the Salpêtrière. The committee, after watching the results of his treatment of these cases, has just made its report, and the following are the conclusions arrived at. From these it would seem that the remedy is destined to fall into the oblivion that has engulphed so many of its predecessors.

1. M. Llandolfi's method is made up of both local and internal treatment. 2. The latter, which consists in the administration of chloride of bromine, does not possess the slightest special therapeutical value in the treatment of cancer. 3. The local treatment consists in the application of the following caustic:—Chloride of bromine, 3 parts; chloride of zinc, 2 parts; chloride of antimony, 1 part; liquorice powder, 1 part. 4. Of these substances, the chloride of zinc and chloride of antimony have been long known and employed as caustics. These two chlorides combined in the same proportions as in Canquoin's caustic, form the only portion of M. Landolfi's preparation that is really active. 5. The choride of bromine only acts by raising the epidermis, and exposing the denuded part to the action of the other two chlorides, a result easily obtained by any vesicatory applied just before employing Canquoin's paste. 6. M. Landolfi's preparation is, in fact, only this caustic masked by a colouring and odorous body, which, although it leaves the causticity unimpaired, destroys the precision of application. The chloride of bromine has only spoiled the mixture by rendering it fusible, much more difficult to manage, and much more uncertain in its results. 7. As the caustic so modified does not secure the patient from erysipelas or consecutive hæmorrhage, it can be no longer affirmed that its employment is exempt from danger. 8. Infinitely more painful than most others, this caustic induces most severe suffering, which in general lasts for six or eight hours, and may be prolonged for more than twenty-four hours. Opium and other narcotics are powerless against these pains, while their duration forbids our even thinking of employing anæsthetics. 9. The mode of application is quite vicious, and opposed to the rules of art. In place of attempting to at once destroy the cancerous tumour, M. Landolfi attacks it by partial and successive applications—a necessary consequence of employing a caustic the extent of the action of which cannot be calculated. 10. These successive applications, repeated on some patients fifteen or twenty times, induce a total amount of suffering hitherto unheard of. 11. They prolong the treatment indefinitely, and infinitely delay cicatrization. 12. The incessant irritation thus induced is of a nature to favour relapse, as experience has only too well shown, and as all know who are imbued with sound surgical knowledge. 13. This method, applied by the inventor himself to nine cases of cancer of the breast and three cases of cancroid, has given the following results:—Of the 9 cases of cancer of the breast:—2 have died, 4 have suffered a notable aggravation of the disease, while in three cases in which cicatrization took place, the disease immediately after re-appeared; that is to say, in no case did a cure result. Of the 3 cases of cancroid, a cure took place in 1; in another there was cicatrization with re-appearance of the disease, and in the other an exacerbation took place that necessitated the amputation of the limb.

To sum up, M. Landolfi's method can only be applied to certain cancers; it is more painful and more uncertain than several other modes of cauterisation; and it is, in particular, inferior to Canquoin's method, of which it is only an altered copy. Like all the other methods of treatment, it may succeed in destroying certain tumours and cicatrization may follow; but it is quite powerless for the prevention of relapse, which it would seem rather to provoke, and so far from forming a step in advance, it adds but another to the illusions that so abound in the history of cancer.

Bull. de Thérap., Tome L., p. 421.

A CASE OF MACROGLOSSA.

By Professor TEXTOR.

So rare are the examples of this affection, that Professor Textor, during his half century of varied observation, has never met with a case before the present.

A. Hart, apparently had a somewhat large tongue at the time of her birth; but, at all events, soon afterwards its anterior extremity commenced enlarging, and the neck to swell. When seen, she was 2½ years old, and the tongue projected an inch and a-half beyond the mouth, and filled up the entire aperture, so that it was only with difficulty the point of the finger could be passed over it into the mouth. The child could not withdraw it into the mouth. It felt hard, but was moist, and did not quite obstruct swallowing. At the anterior part, and below the right side of the lower jaw, a soft swelling, resembling a large ranula was observed. An incision was made into the lower surface of the tongue, on each side of the frænum, and a considerable quantity of bright yellow lymph-like fluid was discharged by means of a bistoury from the swelling beneath the jaw. Little pain was felt, and, although the three apertures were bathed with warm water, the bleeding soon stopped. A moderate suppuration ensued, without exerting any influence upon the size of the tongue. The child was in good health, and Professor Textor determined upon the removal of a wedge-shaped portion of the organ, as recommended by Dieffenbach.

It was deemed improper to employ chloroform in this case. The tongue was drawn out by means of a Muzeux' forceps as far as possible, and was so retained by ligatures passed through its whole substance. With a large pair of Richter's hare-lip scizzors, two incisions were directed obliquely from the edges of the tongue towards the mesial line, terminating there in an obtuse angle, the wedge-like portion thus removed comprising the whole of the anterior part of the organ. The right lingual artery was tied, and the edges of the wound were brought together by the interrupted suture. The portion removed weighed 9 drachms, and an account of its minute examination

has been published by Virchow, in his *Archiv.* (Band VII., p. 127). It consisted chiefly of dilated and enlarged lymphatics, but there was no increase of the muscular bundles. The operation was performed on January 19, and by the 24th the tongue had begun to diminish, and the ligatures had come away. By April 1, the healing of the parts was completed, only a slight depression marking where the loss of substance had existed.

Since the year 1791, when K. K. Von Siebold ligatured the enlarged tongue of a 10-year old child with fatal result, no other example of this disease has been met with at Würzburg. The case is given in the 3rd Heft of his "Chiron," and on examining the preparation Virchow also found enlargement of the lymphatics, but not of the muscular fibres. In the same volume of the "Chiron," Klein, of Stuttgart, relates three cases of enlarged tongue, in one of which the anterior part was removed with success. Leuw in his Dissertation *de Macroglossa* (1845) gives a very complete collection of cases. The most recent ones are those by Humphry, Hodgson, and Teale, in the 36th volume of the "Medico-Chirurgical Transactions," and by Sédillot in the *Abeille Medicale*, for 1854.

In regard to treatment, Professor Textor believes that the removal of the superfluous portion by cutting instruments is beyond all doubt the preferable means, while it is not attended with the danger supposed by some. It is not necessary to perform the preliminary ligature of the lingual arteries as recommended by Hyrtl and others, as on the event of their bleeding much during the operation, they can be secured, the actual cautery only being required in exceptional cases.

Whether a relapse will take place in this case, as it did in one operated upon by Wutzer, is uncertain, although from the fact of the incisions passing amidst the changed structure, this is not improbable.

Würzburg Verhandlungen. Band VI., p. 75.

TREATMENT OF NOCTURNAL ERECTIONS.

By M. DEBOUT.

When these occur during the course of a gonorrhœa, or are produced by genital erethism in the young, M. Van den Corput recommends the following pills:—Extr. of belladon. 10 centigr., fresh lupulin, camphor, āā 60 centig. Divide into eight pills, from one to four to be taken towards the evening. The saccharate of lupulin always succeeds, when given in sufficient doses, in the relief of the erections which are sympathetic of specific inflammation of the mucous membrane. A better combination than that of camphor and belladonna is formed with indian hemp:—Extract of indian hemp 5 centigrammes, recent. lupulin 1½ grammes, sugar 9.s., for the trituration of the lupulin. To form two doses, to be taken in the evening at an hour's interval. As to the erethism of children, it is usually induced by ascarides in the rectum, and may be relieved by injections of cold water or of salt and water.—*Bull. de Therap.* Tom. XLIX. p. 360.

ON DISLOCATION OF THE THUMB.

By Dr. BATCHELDER.

Dr. Batchelder observes that the dislocation of the thumb at the joint connecting the first phalanx with the metacarpal, has long been an opprobrium of Surgery, and he recommends the following mode of procedure:—"In this displacement, parts of the *flexor brevis* are put on the stretch, which, acting like extensors, draw the proximal extremity of the phalanx upwards along the posterior surface of the metacarpal bone, and fix it there: hence, every attempt at extension only makes matters worse. The Surgeon should take the metacarpal portion of the dislocated thumb between the finger and thumb of one hand, and flex it, or force it, as far as may be, into the palm of the hand, for the purpose of relaxing the muscles connected with the proximal end of the phalanx, particularly the *flexor brevis*. He should then apply the end of the thumb of this hand against the displaced extremity of the dislocated phalanx, for the purpose of forcing it downwards, and at the same time grasp the displaced thumb with his other hand, and move it forcibly backwards and forwards, as in strongly forced flexion or extension, the pressure against the upper extremity of the first phalanx being kept up. In this way the dislocated bone may be made to descend, so as to be almost or quite on a line with the articulating surface of the metacarpal bone—when the thumb may be forcibly flexed and (if it be not reduced) as forcibly extended, and brought back to a right angle with the metacarpal bone, when, if the downward pressure of the thumb, placed as before directed for that purpose, has been continued, (which thumb, by maintaining its position, acts as a fulcrum, as well as by pressure,) the bone will slip into its place, and the reduction be effected in less time than has been spent in describing the process."

The author states that he had been in the habit of teaching and practising this method for many years, when he learned from Ranking's Abstract, that Dr. Doe, of Cabot, U. S., has also employed very similar means with equal success.

New York Journal of Medicine. Vol. XVI., p. 339.

GENERAL CORRESPONDENCE.

DRAINAGE OF ANCIENT ROME AND LONDON.

[To the Editor of the Medical Times and Gazette.]

Sir,—I subjoin some remarks, bearing on the drainage and topography of London and ancient Rome, and will feel obliged by your insertion of them, as relating to an important branch of preventive Medicine. I am, &c. C. F. Moore, M.D.

I am inclined to think the famous sewers of ancient Rome have been the cause of our, of late years, using the Thames and other rivers as the outfall for the sewage of our cities and towns. For a superficial reasoning, upon the great Roman works, easily leads to the supposition that our plans of drainage resemble them.

But on further investigation we find that Rome was built on the banks of a deep and rapid (a) river, remote from the sea—a sea with scarcely any tide. The Tiber, as it flowed through Rome, was 35 to 40 feet above the Mediterranean; consequently there were no "pent-up cesspools" at every tide, as our sewers are in most cases.

Moreover, the Cloaca Magna was of great size, and through it the sewage and land drainage of a considerable part of Rome was carried—swept along by the overflow of numerous aqueducts, fountains, and baths. We learn also that this great sewer was built of uncemented stones, that it extended from the Forum to the Tiber, and that it converted the locality from having been a marsh into a good building site (b). Thus we find—

1. Rome was drained into a rapid current, with a fall of 35 to 40 feet in 15 miles.	1. London is nominally drained into the Thames, a tidal river, with a slow and impeded current, and an average fall per mile, from London Bridge to the Nore, not exceeding one inch (c).
2. It is evident, Rome was well washed through by running water—from its river, fountains, etc.	2. It is evident, to at least two of our senses, that London is not well washed through by running water.
3. There was no tide to keep the sewage of Rome "oscillating" (e) for several hours twice a-day (f), within the precincts of that city.	3. The Report (d) of Captain Burstall to the First Commissioner of Her Majesty's Board of Works, states, to the effect, that, if the last improvement, of the latest appointed body for the purpose, "The Metropolitan Board of Works," be carried out, the sewage will be kept oscillating between Plumstead and the West-India Docks for five hours and twenty-two minutes every tide; and that this state of things would be at variance with the Act of August, 1855, which provides, that sewage shall not be discharged into the Thames within the Metropolis.

In conclusion, one of two courses seem open for the drainage of London and other places:—

1. To discharge the sewage by a tunnel into the sea; or,

(a) Imperial Gazettcer.
(b) Encyclopædia Britannica.
(c) Imperial Gazetteer.
(d) *Times* July 4, 1856.
(e) Captain Burstall.
(f) Suggestions for Improvements in the Sewerage of Cities and Towns. 1854.

2. To construct such a system of division of drainage that the land, most requiring such aid, may be fertilized with liquid or solid sewage; at the same time, that the present brick and pipe sewers be retained for surface or overflow drainage in case of heavy rains, or until the new system be sufficiently tested to be wholly trusted.

But, Sir, while we wait for better things, pray use your influence, that ample flushing of our sewers may be carried out, and that a sufficient supply of good, fresh water be allowed each house, to cleanse its drains daily; and, while attention is drawn to this matter, let ventilation, cleanliness, and the smoke nuisance not be forgotten.

Old Burlington-street, July 15, 1856.

CAUTION.

[To the Editor of the Medical Times and Gazette.]

Sir,—I wish to caution my Professional brethren against the following system of robbery:—A woman, dressed as a servant, with a large shawl, about thirty years of age, and of a fair complexion, called last evening during my dinner time and asked to communicate a message to me personally. She was put into my study, and, although I joined her within two minutes, she found time to secrete an umbrella and one of my cases of instruments.

Her tale is that her victim is wanted to visit a lady that evening, as her Medical attendant cannot attend her, and she tells her story so well that I am anxious to prevent others suffering from the same vexation which I have undergone, and to caution my Medical friends not to allow any stranger to be left a moment in their private rooms, unless their servant remains there with them.

She also asked for one of my cards, as she said, to show she had come to the right address. Luckily, as this was most likely part of a scheme for future depredations, I did not give her one. I am, &c.

July 10, 1856. F.R.C.S.E.

TARTAR EMETIC IN INFLAMMATORY CROUP.

[To the Editor of the Medical Times and Gazette.]

Sir,—I find on looking over the communications of Dr. Elliotson and Mr. Meek upon the treatment of inflammatory croup with large doses of tartar emetic, that those gentlemen have quoted exactly seven cases of confirmed croup. I fear that to put the matter on the basis that Dr. Blundell desires many more successful examples of this mode of treatment must be laid before the Profession; and I must humbly suggest, that the value of such statistics will be greatly enhanced if unsuccessful cases be quoted also. Mr. Meek states, that "he has treated twenty cases, given almost incredible doses of tartar emetic, and never saw any bad symptoms arise from its use." I should be glad to know if Mr. Meek means to intimate, that he has treated successfully twenty consecutive cases of inflammatory croup. If he have done this, either his good fortune is incomparably beyond other men's, or his method of treatment such as to render the adoption of any other by Medical men an act of the highest culpability.

In the beginning of April this village and its environs was visited by a measles epidemic, very mild in type, but widespread almost beyond belief, not less than 250 to 300 children having taken the disease. As a sequel, I had in twelve cases to treat inflammatory croup, five of which proved fatal and seven recovered. The mode of treatment adopted was, in the first place, the administration of one grain of tartar emetic and six grains of ipecacuanha as an emetic; subsequently, one grain of calomel and a quarter of a grain of tartar emetic were given every two hours, and almost invariably caused the vomiting to recur. After the first case or two I discarded leeches as inefficient, and even useless, in the number I felt justified in applying to children, and, as Mr. Meek appears to have done, I contented myself with covering the chest and throat with flannels wrung out of hot water. I found, that in every case that was successfully treated the good effects of the treatment were very evident in four-and-twenty hours, and that those which did not yield in that time proved fatal. In such cases as were followed by improvement, the dose was given less frequently, but in the fatal cases it was administered as long as possible.

It certainly does not appear, at first sight, very encouraging to have lost five of twelve patients; but I must state, that two of the five were certainly quite beyond the art of medicine when I first saw them. Whether under my treatment they might have recovered had I seen them in time, must now for ever remain dubious; but, at least, the antimonial treatment was not blameable for the untoward result. I am not quite so sure, however, that in the case of S. K., aged 12, it was not pushed too far. Three weeks after an attack of measles she was seized with croup; I saw her twelve hours after the croupy symptoms appeared, and immediately commenced treating her as I have already mentioned. In four days the croupy cough, aphonia, and stridulous breathing had completely disappeared; but behind them was left extreme prostration and pneumonia in its third stage. Stimulants were freely administered; but, notwithstanding, profuse prune juice expectoration continued to be pumped up by the lungs till the seventh day of her illness, when she sank from sheer exhaustion.

I fear that, in this instance, what cured the croup produced that state of system in which any existing inflammation is likely to assume a low type, and that in consequence, instead of resolution, which in a patient less reduced we might reasonably have expected, the lung passed into the last and most fatal stage of inflammation. If the heroic antimonial treatment should henceforward be generally applied, and, indeed, whether it is or is not, the examination of the fauces is very necessary in cases where croupy symptoms show themselves. Diphtheritis, at present, I am happy to say, an alien, and which I hope may never become naturalized, gives, when the faucial exudation passes into the larynx, symptoms in no other way distinguishable from those of inflammatory croup than by ocular inspection. I need scarcely say to any practical man that in such cases heroic antimonial treatment, or heroic blood-letting, will prove considerably "worse than useless."

I cannot conclude this communication without entirely dissenting from the gloomy view Dr. J. W. F. Blundell takes of the treatment of croup in this country. I think I am quite safe in saying that ninety-nine of every hundred Medical men will be found to rely in such cases either on blood-letting, or the active administration of tartar emetic. It is true that croup is one of the most lethal forms of disease we are acquainted with; but if Dr. Blundell remembers that it is also one of the few inflammatory diseases which, being left to the efforts of nature, will invariably prove fatal, he will agree with me that in no other can the Medical attendant more certainly attribute recovery to the remedial agents he has used.

I am, &c. E. W. Sullivan, M.D.

Ilford, July 14, 1856.

[To the Editor of the Medical Times and Gazette.]

Sir,—Having observed in your valuable periodical of the 5th some remarks by Dr. Elliotson on the wonderful efficacy of the potassio-tartrate of antimony in inflammatory croup, I can bear just testimony to its great value when freely given in that severe and often fatal disease, as well as in all others of an active and inflammatory nature; and I am of opinion, that, if perseveringly, though judiciously, administered, all its forms may be successfully combated.

For the last fifteen years, I have adopted the practice of treating every case of croup with full doses of this remedy in combination with powdered ipecacuanha; and in no instance has it failed, unless the disease was very far advanced.

It would be absurd in the extreme were I to entertain any doubt respecting the production of tetanic convulsions from the use of large doses of tartar emetic, as stated by so high an authority as Dr. Elliotson; but I have never, in one instance, observed those symptoms. The prostration, in many cases, has appeared alarming, leading to the supposition that the remedy might be worse than the disease; and, though there might be great risk in using such bold treatment, the severity and danger of the attack must always justify its adoption.

A few months ago I was called to a little boy, 4 years old, apparently beyond all remedy. There was extreme difficulty of breathing; in fact, he could scarcely breathe at all, and then with loud croupy sounds; the features suffused and livid. I thought it impossible the child could live an hour. Six leeches were immediately applied, and he was placed in a warm bath, and an emetic powder given, composed of 2 grains of the potassio-tartrate of antimony and 5 grains of powdered ipecacu-

anha, in half a teacupful of water. Vomiting was soon induced, without any apparent relief. The emetic was repeated in the course of an hour; and, though the vomiting was not so severe, it produced profuse perspiration, and the relief obtained was most obvious. The crowing sound had in a great measure ceased, and the breathing became more free. As the bleeding still continued, he was allowed to remain quiet and free from medicine for three or four hours; but the symptoms reappearing, I again had recourse to the same treatment. A grain of the antimony with two of ipecacuanha was given every three, four, or five hours, as the symptoms varied. He continued gradually to improve, and in two or three days had so far improved as to allow me to discontinue my visits.

Last year I was called to the son of a labourer in the country, 18 years of age, who was suffering from the most severe attack of inflammatory croup I ever saw. The croupy sound was so loud that I heard it some yards from the house. I found the patient sitting on the side of the bed, breathing most laboriously, and unable to speak, with great constriction across the throat. Twelve leeches were applied, and a powder, with 3 grains of potassio-tartrate of antimony and 5 of powdered ipecacuanha. He soon became nauseated, and after vomiting very freely said he breathed more easily. A mixture was then ordered, with 25 grains of powdered ipecacuanha and 6 of tartrate of antimony in 6 ounces of solution of gum-arabic, two table-spoonfuls to be taken every three or four hours until visited again. I saw him in six hours, and found him much relieved, but much weakened. The medicine was then given at longer intervals, the symptoms gradually subsided, and on the following day little or no signs of croup remained, and he soon rallied from the consequent prostration. I could relate many other cases, did it not occupy too much of your space, all of which have yielded to the prompt use of this preparation of antimony with ipecacuanha. I believe the frequent exhibition of large doses of tartar emetic the only sure mode of combating the rapid progress of so fatal a disease as inflammatory croup. I have never seen any evil consequences from its use, except great prostration at times, which is always surmounted by a mild, though very nutritious, diet. With every apology for occupying your space, I am, &c.

Howden, July 15, 1856. JOHN HARTLEY.

"THE CONDITION OF VISION THE BEST TEST OF THE SQUINTING EYE."

[To the Editor of the Medical Times and Gazette.]

SIR,—Before Mr. James J. Rudall again commits himself to print, I should recommend him first to read what he undertakes to criticize; and secondly, to be quite sure that he understands what he reads; had he done so in regard to my paper, I feel convinced he would not have written the letter which is published in your last week's impression. The object of the paper to which he alludes, was not to point out what it was presumed every well educated Surgeon was acquainted with, namely, that the vision of "an eye which habitually squints" is less perfect than one that is not so affected, (a fact pointed out by Buffon above 100 years ago,) but to show that in this imperfection of vision we possessed a test—the best test,—for discovering the squinting eye in doubtful cases. If Mr. Rudall will again refer to the quotations in my paper as to the works of the eminent ophthalmologists from which they are taken, he will find that these gentlemen speak of cases of strabismus, in which "it is not an easy matter to determine which is the defective eye," Walton; and for this reason "it becomes a question which eye ought to be operated on," Dixon; he will further observe that the rules which are laid down for the detection of the affected organ, have reference to its position under particular conditions, (an uncertain criterion, for the reasons mentioned in my paper,) and not to its vision, by which this position is regulated. It follows, then, that although the state of vision of squinters has not been overlooked in "the valuable little treatise" to which Mr. Rudall directs my attention, the fact has been made no use of by its author. To point out how this familiar fact might be applied to the diagnosis of doubtful cases was the object of the paper which Mr. Rudall has so strangely misunderstood. I am, &c., C. HOLTHOUSE.

2, Storey's Gate, St. James's Park, July 14, 1856.

ON DIVISION OF MUSCLES IN ALTERNATING AND PERMANENT STRABISMUS.

[To the Editor of the Medical Times and Gazette.]

SIR,—It has been well said by Mr. Holthouse, that, in alternating strabismus, the visual power of the eye should be the guide to determine which of the internal rectus muscles should be divided; "that eye should be selected for operation the visual power of which is inferior." If this law were generally recognized, the unpleasant result of strabismus divergens would never occur in consequence of this operation, for there would then be neither necessity nor temptation to divide the two muscles. But when retraction is permanent of the internal rectus muscle of both eyes, constituting double convergent strabismus, section of the tendons of both muscles is required. This double convergent strabismus is rare as a permanent affection, and is generally induced by inflammation. I have twice had occasion to treat this form of strabismus, the last instance being a very severe form of double permanent squint. It occurred in a young lady, 15 years of age, who, during infancy, had conjunctival inflammation of both eyes, and corneitis of one eye. Double convergent strabismus resulted; and so much were the eyes distorted, that both corneæ were nearly half-hidden. A large print could be read when placed close to the nose, and features could be distinguished at a distance of three feet. It was a great effort to read, and persons were distinguished, for the most part, by the voice. Also, in moving about the house, she was guided more by touch than sight, and she never left the house alone.

In December, 1854, I divided the internal rectus of the worst eye; the section produced no effect on the other eye, but immediately caused that one to be righted, the tendon of which had been divided. I allowed six months to elapse before I operated on the other eye; the operation was then done with complete success, and the eyes remained straight, as in their normal condition. A year has now nearly passed since the second operation; the result as at present existing may, therefore, be fairly considered final. The eyes remain perfectly straight, without the slightest outward inclination; persons can be distinctly seen on the opposite side of the street, and a small print can be read at rather less than the ordinary distance.

In a similar case, I should be inclined to follow the course which was adopted in the present one, namely, not to divide the second tendon until the eye first operated on had recovered, in great measure at least, perfect power of motion.

I am, etc. BERNARD BRODHURST.

Lower Brook-street, July 15, 1856.

SMYRNA HOSPITAL:—CASE OF THE FOUR SENIOR MEDICAL OFFICERS,

WHOSE "SERVICES WERE DISPENSED WITH" AT THE LATTER END OF NOVEMBER, 1855.

DURING the pressure on Government, created by the disasters of our army in the winter of 1854—5, an appeal was made to the Medical Profession at home to go to the aid of their Military Medical brethren in the East. To promote this object Government determined, about the latter end of January, 1855, on establishing a Military Hospital at Smyrna, to be conducted on a plan similar to that of our Civil Hospitals at home, and to officer it with civilians. Great pains were taken to select the best Medical Officers that could be found willing to go, and inducements were held out to them, commensurate, as it was thought, with the importance of the service in which they were to be engaged.

The first proposition was, that gentlemen who would undertake to serve the Government for a year were to receive at the end of this term six months' additional pay as a gratuity, and the Medical Officers of the Smyrna Hospital were engaged on those terms; but before we had left the country a more liberal offer was made to the Profession.

In a circular letter from Lord Panmure, dated February 17, to the Governors of the principal Hospitals and Dispensaries of this metropolis, his Lordship, after lauding the patriotism and humanity of the Medical Profession, requests the aid and concurrence of the Governors "in his organization of a special civil Medical Staff at the seat of war; and," the letter continues, "to meet the case of gentlemen who may give up

private practice to proceed to the East, it is his Lordship's intention to propose that the salary to be paid by the Government shall be continued for one year from the termination of the engagement, which it is hoped will enable those who may find their private practice wholly or partly passed into othe hands, to bear with less inconvenience the interval that may elapse before they can recover it." In the same letter his Lordship said the terms should be the same as those of the Smyrna Hospital, and as we, the Senior Medical Officers of this Hospital, had given up private practice to proceed to the East, we inferred that we should have a claim to this more ample remuneration. In fact, we had not only given up private practice, and the emoluments derived from public appointments, but had incurred heavy additional premiums to Life Insurance Offices.

Towards the latter end of November the Smyrna Hospital was broken up, and our "services were dispensed with," two or three months before the expiration of the term we had undertaken to serve. We were willing to complete our term of service elsewhere, and volunteered to go wherever the Government might please to send us, but our offers were declined. We have received twelve months' pay, and three months' gratuity, exclusive of allowance for travelling home, and this at first sight may appear liberal treatment; but on considering the circumstances under which we went out, the arrangements we had made for a twelvemonths' absence, the expectations we had been led to form, and the course adopted by Government in other similar cases, we feel that we have suffered an injustice.

It has already been shown that the original engagement seemed to ensure us at least eighteen months' pay, and that Lord Panmure's letter, which immediately followed, gave us, who had made all the sacrifices to which he alluded, strong grounds for expecting twelve months' gratuity subsequent to our twelve months' paid service. The following facts show that his Lordship's intention has been acted on in other cases.

In consequence of his Lordship's letter a number of civilians were sent to Scutari; (a) they served a year, and have received, in addition to their year's pay, a twelvemonths' gratuity, although some of them had not the claim found on the sacrifice of private practice, inasmuch as at the time of their appointment they were not thus engaged.

Again, the Militia Surgeons and Assistant-Surgeons, who did not give up private practice, many of whom had not commenced practice, and had only just completed their Medical studies, who have not even been out of the country, have received a twelvemonths' gratuity in addition to their pay.

Lastly, we desire it to be understood that we found our claim for an enlargement of the gratuity awarded us, not on any special interpretation of the original agreement entered into with us by Government, and which some of us did not sign, but on the general understanding created by Lord Panmure's letter; on the obviously just principle that all who made large sacrifices for the public service should be liberally treated; on the absolute loss we have suffered owing to our early dismissal from the Hospital at Smyrna, which could not be anticipated; and, lastly, on the fact that the principle of remuneration for which we contend has been acted on by Government in regard to gentlemen whose claims are certainly less strong than our own.

(Signed) Arthur Leared, M.D., late Physician to the Royal Infirmary for Diseases of the Chest, etc.
John Barclay, M.D., late Physician to the Leicester Infirmary.
Septimus Gibbon, M.D., Assistant Physician to the London Hospital, etc.
Carsten Holthouse, F.R.C.S., Assistant Surgeon and Lecturer on Anatomy to the Westminster Hospital.

Copy of Lord Panmure's Letter to the Governors of London Hospitals.

War Department, Feb. 17.

Gentlemen,—I am desired by Lord Panmure to request your immediate and earnest consideration of a subject which at this moment engages his Lordship's most anxious attention, namely, the best means of rendering the vast professional resources of Great Britain, and more particularly of the Metropolis, available for the Medical relief of the British army at the seat of war. Lord Panmure is well aware that members of the Medical Profession, ever forward in a cause of humanity, no less than of patriotism, would not be wanting to respond to any appeal which might be addressed to them by the Government; but his Lordship is of opinion that the present necessities of the army call for Medical assistance of an order which can only be insured by selection from individuals who have already given proof of their possession of the requisite skill, and whose antecedents guarantee their experience; such individuals must be looked for first in the Medical establishments of the great Metropolitan Hospitals.

I am directed by Lord Panmure to request your aid and concurrence in his organization of a special Civil Medical Staff, to assist the Military Medical Staff of the army at the seat of war. His Lordship considers that this could be best effected by your selection of two or more Medical gentlemen for the posts of Physician or Surgeon, of four or more other gentlemen of a junior standing as Assistant-Physicians and Surgeons, and of such proportion of advanced Medical pupils as you may deem necessary to perform the duty of dressers; but his Lordship considers that such an arrangement will fail to secure the services of the most highly qualified of your officers, unless you can at the same time, by an internal and private arrangement of your establishment, protect the gentlemen selected from a permanent Professional loss, resulting from their humane exertions. This can probably be effected only by declaring that such offices as may be held by gentlemen volunteering to proceed to the seat of war on temporary furloughs from the establishments to which they belong shall not be declared vacant during their absence; but that their duties shall be provisionally performed by other gentlemen, especially appointed for the purpose, and that they shall be reinstated in such offices on their return.

The remuneration which Lord Panmure would propose for these Officers would be that already fixed for the Civil Medical Officers at Smyrna, which is as follows: viz., Physicians and Surgeons £2 2s. per diem, Assistant ditto £1 5s. per diem. But his Lordship will be ready to consider any suggestions you may desire to make on that head; and I am instructed to add, that, to meet the case of gentlemen who may give up private practice to proceed to the East, it is his Lordship's intention to propose that the salary to be paid by the Government shall be continued for one year from the termination of the engagement, which it is hoped will enable those who may find their private practice wholly or partly passed into other hands, to bear with less inconvenience the interval that may elapse before they can recover it.

Lord Panmure proposes that the Hospitals to be conducted by the Civil Staff shall be as much as possible distinct from and apart from those in charge of the Military Staff; nevertheless he proposes to give local Medical rank to the gentlemen so engaged.

Lord Panmure is well aware that in the present infected state of the great Hospital at Scutari a local removal of the sick is greatly to be wished. This subject presents many practical difficulties; but his attention has been given to the means of overcoming them; and he trusts that the infection in question will not remain to augment the difficulty of the duty. I am, Gentlemen, your obedient servant.

Copy of Agreement with the Government.

Smyrna Hospital.

Sir,—We, the undersigned Physicians and Surgeons appointed to the Smyrna Civil Hospital, engage to enter upon the discharge of our duties, to be defined by the Medical Superintendent for the time being, upon the following conditions:—

A free passage out and home, lodgings, or lodging money, and free rations. To serve a year, and to be guaranteed a year's pay; and, upon our services being dispensed with after the period of twelve months' service, to receive on retirement a gratuity of half-a-year's pay.

Officers to give three months' notice of their intention to leave the service; the notice to be given on the first of any month. In the event of leaving within the first year of service, the pay to cease at the date of leaving, except in case of illness, when, upon report of a Medical Board, an officer shall be entitled to a free passage home and three months' salary as a gratuity.

(a) Two of us had the option of going either to Smyrna or Scutari, and we chose the former only on being assured that Government would make no difference in the treatment of the civilians who might proceed to the East—"All would be treated alike."

In the event of death from disease contracted when on duty, the representatives of such officer to be entitled to receive the same gratuity as would be granted under the above regulations to an officer on retirement.

Salary to be £2 2s. per diem.

To the Deputy Secretary-at-War.

TRIAL OF WILLIAM DOVE.

POISONING BY STRYCHNIA AT LEEDS.

On Wednesday morning this trial commenced, in the Crown Court, York Castle, before Baron Bramwell. The counsel retained for the prosecution were Mr. Overend, Q.C., Mr. Hardy, and Mr. Bailey. For the defence were Mr. Bliss, Q.C., Mr. Serjeant Wilkins, Mr. Hall, and Mr. Middleton.

Mr. Overend, Q.C., opened the case for the prosecution. He said,—We say, on the part of the prosecution, that the prisoner has committed murder by the use of a subtle poison known by the name of strychnia; that he used this poison on five or six different occasions; that he made five attempts on the life of his wife which were unsuccessful; and, finally, that he made a sixth attempt, which ended in the death of his wife. The poison which it is suggested, on the part of the prosecution, was used by the prisoner, is the poison known as strychnia; and, unfortunately, strychnia is a poison which has been much talked of by the public. It is a vegetable poison, and extracted by chemical agency from a plant called *strychnos*, which bears a nut or bean known as *nux vomica*. The poison is extracted from the nut or bean of the plant; and from a quarter to three-quarters of a grain has been known to destroy life. A grain and a-half is what Medical gentlemen would call a dangerous dose; it is, also, exceedingly, intensely bitter to the taste, which you will perhaps bear in mind. It is nearly insoluble in water; easily soluble in acids; and insoluble in alkalis. The period when it begins to take effect is from a quarter of an hour to an hour. This depends upon the amount given, and the vehicle in which it is conveyed—whether in a soluble (or fluid) state or in a solid form—whether there is much food in the stomach—whether the party receiving it has great powers of absorption—or whether the contents of the stomach by which it is received are acid or alkaline in character. If alkaline, the poison would be difficult to dissolve—if acid, then it would dissolve very easily. Therefore, you will perceive that the poison will operate sooner or later, according to the state of the stomach, the condition of the person taking it, the vehicle in which it is administered, and the form in which it is when passed into the stomach. After the first effect of the poison is felt, its continuance varies from half an hour to two or three hours, according to the state of the patient, and whether the dose is sufficient to produce a fatal result. The operation of the poison is this: it is absorbed into the system, passes into the blood, and circulates throughout the whole frame; but its great and principal effect is produced on the spinal marrow. The muscles of the body are peculiarly affected; the muscles of the touch—the grasping muscles—are affected in a very remarkable manner. All the nerves of motion are peculiarly affected; and there is this very remarkable peculiarity that all the nerves which come from the organ of intelligence, the brain, are unaffected by it; so that while there are great spasms of the muscles, great contractions of some portions, and paroxysms almost beyond endurance, the consciousness of the mind remains, and the patient is well aware of what is going on. This is the great peculiarity of this poison, and it differs materially from opium, which acts upon the brain, and produces insensibility almost immediately after it is taken. There is another peculiarity in the poison strychnia. It is not a cumulative poison. If you give to a patient a mineral poison, like arsenic, in a very small quantity, it will produce a very little effect; if you give more, it will produce a greater effect; and so on with every repetition of the dose, until you produce the most dreadful effects, and eventually death. But this is not the case with strychnia; it is not a cumulative poison. As it passes through the system, it produces a certain effect at once upon the kidneys, spleen, and lungs; but if the dose be too small to destroy life, it loses all power, and passes away from the system. If the effect upon the patient is not speedily fatal, although the effects are very painful, especially during the worst paroxysms, the whole effect passes off, and the patient is left almost without any ill effects, except the exhaustion which must ensue from the paroxysms, and the unnatural strain upon the muscles and nerves of the body. There, however, is no remainder left behind,—nothing by which a second dose of the same quantity would act with greater effect,—nothing which would act in the way of cumulation, as in arsenic and most mineral poisons. There are peculiar and remarkable symptoms of poisoning by strychnia. At first the patient is affected with spasms or jerkings of the extremities; the hands are clenched; the muscles of the arms and legs are convulsed; then the legs and arms are jerked; then there is a difficulty of respiration, and painful efforts to get breath; the reason of which is that, as the Doctors will tell you, the poison asphyxiates the lungs, which are unable to act, and if the paroxysm continues long enough, then death ensues from suffocation. The first effect is upon the extremities of the legs and hands; and the next is its operation upon the back of the neck and the whole spinal cord; and the body assumes the form almost of a bow; and the patient is unable to lie so that the back rests wholly upon the bed; indeed, the body becomes so arched that the patient rests upon the heels and back of the head, and when the spasms are very violent the arch of the back is so great that a pillow has to be placed under it. From this you will form some conception of how great the agony must be of those who are poisoned by strychnia. After this effect upon the arms and back, and the difficulty of respiration, the next thing is the difficulty of swallowing or opening the mouth, and the spasmodic action of the jaws; and there is also dilation of the eyes, and a peculiar expression of the face which, once seen, is never forgotten. This sometimes continues till death, and with slight interruption till the last paroxysm. Death is caused in one of two ways—by the muscles fixing the lungs, and thus producing apoplexy, or else by causing great exhaustion, under which the patient sinks. When the attack is not fatal the symptoms are the same, but their intensity is less, and they do not continue over a certain time, after which the patient recovers, suffering scarcely anything but great exhaustion, arising from the agony the patient has endured, and the great contraction of the muscles. The poison works itself out, and discharges itself from the system. Now, gentlemen, these symptoms, and the order in which they proceed, are inconsistent with any known disease. But there is a certain kind of disease which in some degree resembles it. This is traumatic and idiopathic tetanus. Traumatic tetanus is produced by a wound—and a very slight wound is sometimes sufficient to produce it—by cutting the finger, for example. But the effects thus produced, though somewhat similar in appearance, do not occur in the same order as when resulting from poison by strychnia. In poisoning by strychnia it is a question of an hour; in tetanus it is one of days and weeks; in tetanus the first symptom is the locking of the jaw; in poisoning by strychnia it is the last; in tetanus the patient suffers little in the first instance, and the symptoms go on increasing till the patient expires; but in poisoning by strychnia this is not the case. These are the distinguishing features between the two cases. Idiopathic tetanus follows the same course, and is probably called so because it arises from no known cause. It is distinguished from traumatic tetanus by not being produced by a wound. I believe it is very rare indeed in this country, though it is sometimes met with in India. I need not, however, dwell further on this matter of traumatic and idiopathic tetanus, as my learned friends on the other side will not trouble me upon the point of whether the deceased was poisoned by strychnia; because I shall prove that in the body of Mrs. Dove we found a quantity of strychnia, and that the presence of this strychnia will explain all the symptoms, explain the death, and distinguish the case from traumatic or idiopathic tetanus. As the poison has thus been found, it will not be any argument to presume in the defence that death did not occur from the poison by strychnia. The learned counsel then proceeded to detail the history of the prisoner and his family connexions. The prisoner is the son of a very respectable man, Mr. Christopher Dove, a leather merchant, who lived in Leeds, and died at Christmas, 1854. He left the prisoner an annuity of £90 a-year, upon which the prisoner lived at the time of his wife's death, when he was without employment. In 1852, they were married. He then brought her to a small farm which he at that time occupied at

Bramham. They lived there from the end of 1852 until the beginning of 1855, when they removed to a place called Woodhouse Grove, near Normanton. There they lived from the beginning to the end of 1855; and at Christmas in that year removed to Cardigan-place, Kirtstall-road, a mile and a half from the centre of Leeds. It was in this house Mrs. Dove died. I will now ask you to go with me while I enquire whether there is anything like motive for this dreadful crime. Motive in cases of this kind is always to be looked for, but not always to be found. From a period very early after his marriage, I shall show that there were several complaints of the prisoner's ill-usage; and I shall show that he was a man very much addicted to liquor, and very frequently got drunk. His wife tried to check his propensity for drink; and I believe her attempts to stop this vice were the cause of many differences between them, and led to frequent quarrels. I dare say it will be shown that Mrs. Dove, in her mode of endeavouring to check his disposition to take drink in excess, might have irritated him, and that a more discreet person may have caused less irritation. But (whether her fault or his) great irritation did prevail, and quarrels existed from very soon after their marriage. At various times, as will be shown, the prisoner was kind to his wife; at other times he was abusive, brutal, and violent. [Various details were then entered into, as to their disagreements, and the violent, drunken conduct of Dove, and of an unsuccessful arrangement for a separation.] At Christmas, 1855, they removed to Leeds, but long before that the prisoner had speculated upon one thing,—he had speculated as to when it was probable that his wife would die, and I believe he had recourse to a person in whose judgment not many besides ignorant people will have any reliance. He said he had good reason to suppose that she would not survive the month of February, and she died on the 1st of March. The prisoner mentioned this matter over and over again. On the 19th of February they had a quarrel, and the prisoner at that time told his wife, that "he wished her dead out of the way." He positively upbraided his wife on account of the expense she had been to him for doctors, and he also complained to a female friend how much his wife had cost him; and three weeks before her death his conduct was so violent that a constable was called in to take him before the magistrates for his ill-usage. She died on Saturday, and on the Thursday previous the prisoner met with a person named Henry Rhodes, to whom he said that his wife was very ill, she would not get better, and after she died they would have a regular "jollification." [After showing much apparent motive for the commission of the crime,—having another woman in his eye as his second wife, etc., and his intimate knowledge of the Rugeley poisoning case, the learned counsel proceeded:]—It will turn out in the result, that the prisoner obtained strychnia to the amount of ten grains. With some of this, he treated meat and cheese, and put it in a dog-kennel, and one piece under his wife's bed; a cat and mouse were found dead, and he described the operation of strychnia by saying,—"It seizes them in the back, and they die instantly." He afterwards obtained four or five grains more of strychnia. What became of that strychnia I know not. We know of no more cats that were poisoned. We know of no experiments being made. I have no evidence to give except you adopt the suggestion which is offered on the part of the Crown, that these four or five grains, which were obtained on that occasion with some other, to which I shall refer shortly, were used by the prisoner for the purpose of taking away the life of his wife. Two or three days before Mrs. Dove's death, the prisoner was seen, between seven and eight o'clock at night on the Wednesday or Thursday, to enter Mr. Morley's surgery when there was no one there. The groom walked towards the surgery. When he reached it, he found Dove standing—he having been there twenty minutes—and in the act of putting down the gas. He was very much flurried and agitated, and fumbled in his pocket; he said, "I have come to light my pipe." I don't know, gentlemen, whether he was lighting his pipe, but he was in that surgery for a considerable time; he knew where the strychnia was kept; he had the bottle in his hand; and he had ample means, on that occasion, of providing himself with strychnine. Between Wednesday and Saturday, the prisoner and his wife were entirely without a servant; but on the latter day Ann Fisher, the mother of the servant-maid, went to assist at the house of the prisoner, in the place of her daughter, and she remained in the house up to the death of Mrs. Dove. She was at the house during the important week in which the events occurred into which they were now inquiring. On the Friday she is well; on Saturday, when Mrs. Fisher went, she said she was very well, and appeared in good spirits. On the following Sunday she went to Burley Church with Mrs. Whitham, and was then perfectly well and in good spirits. On Monday, the 25th February, she got up between eight and nine o'clock in the morning. She came down stairs, and about nine o'clock she breakfasted with her husband. She took a hearty breakfast, and complained of no illness. After breakfast she attended to something in the house, and she then volunteered to assist Mrs. Fisher to make the beds. As they went up stairs, she complained of a peculiar faint sensation in the legs, such as she had never felt before. She was scarcely able to get up stairs. On reaching the bedroom she fell upon a chair, and was taken very ill. Mrs. Whitham was sent for, and Dove was called up, and he manifested the greatest possible agitation and concern as to his wife's position. Her legs became stiff; there were twitchings of the legs and arm; her body was thrown back; there was the arching back, and all the symptoms to which I have called your attention as being produced by strychnia. [The learned counsel then proceeded to narrate the history of the several alleged periods when the strychnia must have been administered, and the symptoms following; but as this will appear from Mr. Morley's evidence, we need not here pursue the learned gentleman's statement.] Mr. Overend next called the attention of the jury to the prisoner's conduct after his wife's death, and concluded by remarking: I have now gone through the facts of the case. I think it will be convenient for me to tell you now the post-mortem appearances of Mrs. Dove. There is no doubt that she died from strychnia, and we say that it was administered, not by accident, but by design. Mrs. Whitham laid out the body. She will tell you, in fact, that there was no wound whatever on the body, therefore there is no suggestion that violence was offered so as to cause death. Forty-two hours after death Mr. Nunneley and Mr. Morley saw the body. [Their evidence will supply this part of the learned Counsel's statement.] There is, gentlemen, another fact in the case. On the 22nd of March, the house was closed, Mr. Dove being in prison, and a charwoman was sent to clean it. She was accompanied by a spaniel dog. They went into the room where the post-mortem examination took place, and found on the floor a quantity of blood which was approached by the dog. The woman observed it and chased it away. Whether the dog did absorb any of it, or whether it did not, the fact is, that soon after the dog was taken it died, with all the symptoms of death by strychnia.

Elizabeth Fisher, servant to the prisoner, was examined, and proved the generally uncomfortable manner in which prisoner and his wife lived, and also acts of violence on his part; also, as to the possession of poison by prisoner. When asked as to the state of his mind, she said,—I have said that when he has had drink I did'nt think he was altogether right. I have never said I did not at those times think him sane; I meant that he was not altogether the same as he was when sober. I may have told the prosecuting attorney that when the prisoner was drunk I did not think him sane. I meant that he went on more. Prisoner never cleaned knives, grates, and plates while I was there. He has cleaned the windows. He did a bird in crotchet work, to pass his time. I and he were on good terms. One night he went to the front door, and said he would not be locked out of his own house. Mrs. Dove had locked him out; I assisted. He talked to himself, and locked himself up in the room. The witness then deposed to the prisoner laying poisoned meat and cheese for the cats. At Woodhouse Grove, I saw him wheel his wife in the wheelbarrow up the field. Harrison was the "wizard." I never saw him at the prisoner's house. Dove once wrote a letter to him, telling him "to torment Mrs. Dove while she was at Manchester." It was given to my father to take, and I got it for Mrs. Dove. It was directed to Mr. Harrison, and he was to torment Mrs. Dove all the time she was away at Manchester. When the prisoner was vexed I have often seen him muttering to himself. I have not seen him crying, but I have seen him pretend, I should say three or four times.—Re-examined—I meant by muttering to himself that when he was in a passion he was frequently grumbling. The field first alluded to had some hay in the middle—we were helping to carry it, and prisoner wheeled Mrs. Dove out of the field.

Mrs. Thornhill, a widow, residing at Leeds, charwoman to

Mrs. Dove. On Friday I was in the kitchen, and he told me that he had been to a "witch man," who told him that his wife had not long to live, and as soon as she died he would make an offer to the lady next door. He said she had not many days to live, and the lady next door was a very nice lady, with only one child. Prisoner black-leaded the stoves and cleaned the plate. He got the meals ready, and he was knitting an anti-macassar when I went at night When he blackleaded the stoves, the servant had gone away, and Mrs. Dove was poorly.

Ann Fisher and Mrs. Whitham detailed the facts attending the illness of Mrs. Dove, which went to show the administration by the husband of food and medicine, and the symptoms following, which resembled those of strychnia poisoning.

[We have much pleasure in acknowledging that we are indebted to the courtesy of our contemporary, the *Leeds Mercury*, for a full and very accurate report of the first day's proceedings, from which we have abstracted the above.—Ed. *M. T. & G.*]

PARLIAMENTARY INTELLIGENCE.

HOUSE OF LORDS.—Thursday, July 10.

SALE OF POISONS.

Lord Campbell said he felt it to be his duty to bring under the notice of their Lordships a subject of great importance—he referred to the necessity of a new law to regulate the sale of poisons. Without referring to a recent notorious case, he was shocked to say, that the crime of poisoning, for a great many years, had been most alarmingly on the increase. The facility for the commission of the crime had led to its frequency, the motives generally being to obtain money, in one class of cases, through burial clubs, where the poisoners trafficked in the life of their own offspring; and, in another class of cases, the poisoning took place with respect to persons whose lives had been insured. From his own observation and practice at the bar, he could affirm that this class of crime was very prevalent. Till lately there was no restriction on the sale of any poison; but poisoning by arsenic having become very frequent, the present Lord-Lieutenant of Ireland introduced a Bill by which a great restriction was placed on the sale of arsenic. Another poison had now come up; and anybody might now buy, in any chemist's shop, a pennyworth of nux vomica without difficulty. Nux vomica was not so strong a poison as strychnia, but it contained the elements of that poison, and would as certainly kill. Surely it was very important that some restriction should be placed upon its sale. Without excess of restriction, there might be a salutary check upon the purchase of those poisons, and as it was the Government alone which could adequately legislate on the subject, he wished to ask his noble and learned friend on the woolsack whether it was the intention of the Government to introduce any Bill to regulate the sale of poisons.

Lord Ravensworth suggested the propriety of instituting some additional precautionary regulations with respect to the proceedings of Life Assurance Companies. Could not these Companies act on some rule under which they might report suspected cases to the Home Office?

The Lord Chancellor admitted that the course taken was irregular, but the observations that had been made would warrant his giving an answer to the question. His answer was, that the subject had been under the consideration of the Government some years ago, when the present Home Secretary was at the Home Office, and the result was that a measure was introduced which confined the restriction by law on the sale of poisons to arsenic. It was found that difficulties of a serious nature intervened to forbid the defining of the different sorts of poisons, still unknown to the public. There were seventeen such poisons; not, indeed, as deadly as arsenic, but sufficiently deadly to kill, and it was deemed unwise publicly to forbid their sale by naming them. With respect to other poisons which were known, he saw no objection to placing them in the same category as arsenic, as far as the regulations of their sale was concerned; and he had the authority of Sir G. Grey for saying, that the subject would receive the consideration of the Government.

HOUSE OF COMMONS—Thursday, July 10.

VACCINATION BILL.

On the order of the day being read for going into Committee on this Bill,

Mr. Cowper called attention to the imperfect state of the present law, to the objections made to the practice of Vaccination, and to the difficulty consequently experienced in carrying the law into effect; and urged upon the House the necessity of adopting some effective measures with reference to a disease which produced such fatal results. In dealing with the subject he was one of those who was not for centralization (a laugh), but for local self-government (hear, hear); and in the measure before the House he had endeavoured to meet the objections made to the law. To guard against the employment of unskilful Practitioners, he proposed to place the Medical men entrusted with the duty under the superintendence of a professional and scientific branch of the department, and thus effect an improvement in performing the operation. It was expedient that an improvement should be made in the size of the districts, and he thought it would be advantageous if the districts could be made conterminous with the registration-districts. To effect that object, it was desirable that while the Boards of Guardians were allowed to discharge their present duty of apportioning the Vaccination-districts, they should not do so without communicating with the Board of Health, who would consider the matter in a medical and sanitary point of view. He proposed, also, to make the registration complete and satisfactory, and for that purpose it was provided that the Registrars should register all successful cases of Vaccination, and make periodical returns to the Boards of Guardians. The Boards of Guardians would thus be enabled to call upon the parties to obey the law, who had neglected to observe it, and as there is not at present any means provided for enforcing penalties where the law is not observed, the Boards of Guardians would be empowered to charge upon the rates the expenses of prosecutions, where it was found necessary to enforce the law. He had retained in his Bill the obligatory and compulsory clauses, though he apprehended that the measure would, on that ground, be exposed to objection; but he deemed it expedient to do so when legislating with reference to a loathsome complaint that destroyed a larger proportion of lives than any other disease. It appeared, from returns, that one person out of three died who had the small-pox without Vaccination, and that in general the proportion of deaths in such cases amounted to one in three or one in four. It was alleged that certain disorders had followed from Vaccination, but he referred to the evidence of a large number of Medical men, who declared that no evil or misfortune had arisen from the practice. Under all the circumstances, he thought it would be well to refer the whole subject to a Select Committee, and he intended to propose next year, that a Select Committee should be appointed to inquire into the subject. He would, therefore, now move that the order for going into Committee on the Bill should be discharged.

After some discussion, the order for going into Committee was discharged, and the Bill was withdrawn.

The Burial Acts Amendment Bill was also withdrawn.

DUBLIN UNIVERSITY BILL.

Mr. Napier, in moving that the order for the second reading of this Bill be discharged, said he concurred in the views expressed by Mr. Gibson in the early part of the evening, and stated his willingness to co-operate with him in carrying them out.

The order was then discharged, and the Bill withdrawn.

Monday, July 14.

COLLEGE OF PHYSICIANS OF LONDON—RENEWAL OF CHARTER.

In answer to Mr. Kinnaird,

Sir G. Grey said, as matters of detail had to be arranged, and as it could not be effected without an Act of Parliament, it was not the immediate intention of the Government to propose the grant of a charter of incorporation to the Royal College of Physicians of London.

DRAINAGE OF THE METROPOLIS.

Sir B. Hall, in reply to a question put by Mr. Butler, stated that a plan for the drainage of the Metropolis had been submitted to him by the Commissioners of Sewers, and that

upon the recommendation of the First Lord of the Admiralty, Captain Burstall was appointed to inquire into the accuracy of the data upon which the plan was founded. The report of Captain Burstall, which was received on the 30th of June, showed that the plan was at variance with the Act of Parliament of last Session, as the point of discharge was within the Metropolitan area, and the sewage would oscillate for five hours and 22 minutes at every tide. Under these circumstances he thought it his duty to reject the plan.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS. — At the Comitia Majora Extraordinaria, held on Wednesday, the 9th inst., the following gentlemen were admitted Fellows of the College :—

Dr. FRERE, Queen-street, May-fair.
Dr. GARROD, Harley-street.
Dr. HABERSHON, Finsbury-circus.
Dr. JOHN HUE, Bedford-square.
Dr. SALTER, Montague-street, Russell-square.
Dr. WILKS, St. Thomas-street, Borough.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the Meeting of the Court of Examiners on the 4th inst. :—

CALLAGHAN, RICHARD, Cork.
CASSELLS, JAMES PATERSON, Gateshead.
COLLINS, WILLIAM HENRY, Hereford.
DRUMMOND, JOHN, Greenheys, Manchester.
ELLIOTT, ROBERT ARTHUR, Army.
GRIMES, SILVESTER, St. Helen's, Manchester.
MILLIGAN, JOHN, Keighley, Yorkshire.
MOYSEY, NICHOLAS, Royal Navy.
O'CONNOR, DANIEL, Killarney, Ireland.
RILEY, JAMES, Battersea.
SUTTON, HENRY GAWEN, Middlesborough, Yorkshire.
TATHAM, ROBERT GORDON, Newby-place, Poplar.

LICENTIATES IN MIDWIFERY.—The following members of the Royal College of Surgeons, having undergone the necessary examinations, were admitted Licentiates in Midwifery at the Meeting of the Board on the 8th inst :—

BYRAMJEE, RUSTOMJEE, H.E.I.C.S.; Diploma of Membership dated May, 2, 1856.
ELWIN, C. J. Broad-street buildings; June 27, 1856.
GILLETT, THOMAS C., Truro, Cornwall; April 4, 1856.
GREEN, S. H., New Garrett, Manchester; May 12, 1856.
GREENWOOD, J., Queen's-road, Dalston; May 12, 1856.
GROOM, W., Wisbeach, Cambridgeshire; April 21, 1856.
KENDRICH, PHINEAS JOHN, Birmingham; June 27, 1856.
LEMON, O., Pembroke-ter., Caledonian-rd, June 29, 1855.
MEADOWS, ALFRED, Ipswich; June 20, 1856.
MURIEL, CHARLES EVANS, Norwich; June 20, 1856.
POWNE, WILLIAM, Fowey, Cornwall; March 31, 1856.
PUGH, J. LISTER P., Halifax, Yorkshire; April 18, 1856.
SLAUGHTER, C. H., Farningham, Kent; June 20, 1856.
TURNEY, T. H., Ovendon, near Halifax; May 9, 1856.
WEBB, J. C., Shaftesbury-cres., Pimlico; March 10, 1854.
WILLIAMS, W., Festiniog, North Wales; May 23, 1856.
WOOTTON, HERBERT GILLOW, Canterbury; June 6, 1856.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 10, 1856 :—

GODWIN, ASHTON, Pelham-crescent, Brompton.
JONES, THOMAS EYTON, Corwen, North Wales.
LANGSTAFF, CHARLES, Andover, Hants.
SHARMAN, JOHN, Abersycham, Pontypool.
TERRY, CHARLES, Northampton.

THE names of Gentleman who passed the examination in Classics and Mathematics on Tuesday and Wednesday the 15th and 16th inst :—

ARROWSMITH, W. H., Durham County Hospital.
BELLRINGER, GEORGE H., Penzance.
BOOTH, WILLIAM R., Gt. Queen-street, West.
BRANSKILL, HENRY, JUN., Upper Eccleston-Place.
BROMLEY, JOHN BOURNE, Lye Parsonage, Stourbridge.
BURRELL, LIONEL, Westley, Bury St. Edmunds.
BURFORD, HENRY H., Hamilton-terrace.
BUTLIN, CHARLES, Camborne, Cornwall.
BUTLER, ALFRED, Guildford.
BYWATER, THOMAS E. G., Knottingley.
CARTER, JABEZ, George-street, Euston-Square.
CASS, WILLIAM M., Goole
CHESTERMAN, R.A., Banbury, Oxon.
COLBY, GEORGE, Malton.
CORNHILL, JOHN, Queen's College, Birmingham.
CUSWORTH, WILLIAM, New Kingswood.
EDWARDS, WALTER, Bampton.
ELLIS, THOMAS SMITH, Foley-place, Gloucester.
GIMSON, THOMAS STEVENS, Walton.
GILSON, FRANCIS G. S. 60, Guildford-street.
GOLDSMITH, GEORGE POCOCK, Walton-place, Barnstaple.
GREENWOOD, D. T., Clapham Common.
GRIFFITH, WILLIAM T., Pinckard-street.
HICKS, JOHN WALE, Langport, Somerset.
HUNTLEY, R. E., Howden Pans.
IRVINE, GEORGE R., High-street, Portsmouth.
JENKYNS, CHARLES, Tucking Mill, Cornwall.
JOHNSON, ALFRED, Roos, near Hull.
JONES, WILLIAM OWEN, Bala, N. Wales.
KERSWELL, GEORGE, St. Germans.
KING, JAMES GEORGE, Havant.
KITCHENER, THOMAS, Jersey.
LANGTON, JOHN, Spencer-street.
LEACH, ABRAHAM, Waterhead Mill, Lancashire.
LEATHAM, JAMES, Rathfriland, Ireland.
MALLETT, WILLIAM JAMES, Bolton-le-Moors, Lancashire.
MARTIN, ADAM RAE, Rochester.
MEADE, HENRY, Bradford, Yorkshire.
MILLER, JOHN N., Norwich.
MOORE, DANIEL, Upper Sydenham.
MORGAN, HERBERT MAJOR, Lichfield.
NELSON, WILLIAM JOHN, Acomb, Yorkshire.
PEARSE, ARTHUR, Norfolk
RAWDEN, HENRY G., Shaw-street, Liverpool.
RAWLINS, WILLIAM P., Francis-terrace, Kentish-town.
RUSSELL, THOMAS, Bexhill, Sussex.
SHILLITOE, RICHARD, Hitchin, Herts.
SIMMONS, BENJAMIN, Stockport Infirmary.
SMITH, THOMAS, Cheltenham.
STOCKWELL, FREDERICK, Bath
SUTCLIFFE, HENRY, Huddersfield.
THURSFIELD, THOMAS WILLIAM, Kidderminster.
TODD, JOSEPH, Birmingham.
TREND, THEOPHILUS WILLIAM, Bridgewater.
TURNER, CHARLES, Fitzroy-Square.
WALSELEY, ROBERT H., Queen's College, Birmingham.
WHITE, FRANCIS THOMAS, Rawseth, Essex.
WILLIAMS, JOHN, Brecon, S. Wales.
WOTTON, HENRY, Fitzroy-square.
WRIGHT, ALFRED, Mount Sorrel, Leeds.

DEATHS.

BETTS.—At Rangoon, George Betts, Esq., Assist.-Surg. of the 45th Regt. N. I., aged 31.

BENWELL — July 10, at Blackheath-hill, Henry Davis Benwell, Esq., Surgeon, aged 29. M.R.C.S.E. 1847; L.S.A. 1847.

GAFFNEY.—July 10, at Buntingford, George Gaffney, Esq., Surgeon, aged 64. In practice prior to 1815; formerly Hospital-Assistant to the Forces serving in Belgium in 1815.

TAYLOR.—July 14, at 2, Abercromby-place, Edinburgh, John Taylor, M.D., Fellow of the Royal College of Physicians, aged 52. Friends will please accept of this intimation.

PRINCE ALBERT AT THE COLLEGE OF PHYSICIANS.—The President and Fellows of the College of Physicians received a large and distinguished party at the College, Pall-mall East, on Saturday evening, to commemorate the 200th Anniversary of Dr. Harvey's gift to the Society of his patriarchal estate, and the 300th Anniversary of Dr. Caius's gift of his insignia of office. In the library was displayed an interesting collection of scientific apparatus, illustrations of Medical science, photographs, and rare treasures selected from the book-shelves of the College. In the course of the evening the company were honoured by the presence of Prince Albert. The Prince proceeded through

the different apartments, conducted by Dr. Paris, the President, Dr. Hawkins, the Registrar, and Sir James Clark, and carefully inspected many of the interesting objects in the library, particularly a series of illustrations of the new mode of artificially propagating and promoting the growth of the salmon, as now practised in the Tay and other rivers. After remaining about half-an-hour his Royal Highness left, having previously expressed to the President his gratification at what he had seen. Among the distinguished visitors we noticed:—Sir John Stuart, Mr. Cardwell, M.P., Sir Benjamin Brodie, Sir Roderick Murchison, Sir John Liddell, Mr. Cæsar Hawkins, Sir Edwin Landseer, Mr. Pickersgill, Mr. Stanley, the Lord Mayor, Serjeant Shee, the Master of the Society of Apothecaries, Mr. Tegart, the Chairman of the Court of Examiners of that Society, Mr. Bowman; and among the Fellows and Members of the College, were:—Sir Henry Holland, Dr. Burrows, Dr. Jeaffreson, Dr. Hughes, Dr. Guy, Dr. Page, Dr. Roget, Dr. Tweedie, Dr. Aldis, Dr. Sibson, Dr. Ogle, Dr. Southwood Smith, Dr. Todd, Dr. Garrod, Dr. Druitt, Dr. Semple, Dr. Ballard, Dr. Ward, Dr. Robert Lee, Dr. Copland, Dr. Edward Smith, Dr. Snow Beck, Dr. Hyde Salter, Dr. Beale, Dr. Leared, Dr. Murchison, Dr. Stewart, Dr. Bence Jones, Dr. Risdon Bennett, &c., &c., &c.

Probate of the following Wills has been sworn to:—John Mortimer, M.D., Inspector of Hospitals, £14,000; Henry Clutterbuck, M.D., £25,000; John Pryor Peregrine, M.D., Jersey, £8000.

University of Edinburgh.—Election of the Professor of Logic.—On Tuesday the Town Council of Edinburgh met at twelve o'clock, and proceeded to fill up the Chair of Logic and Metaphysics, vacant by the death of Sir William Hamilton. On the roll being called, there voted for Professor Ferrier, 12; for Professor Fraser, 11; and for Principal Scott, 8. The name of Professor Scott was then struck off, and the vote again taken, with the following result:—For Professor Fraser, 17; for Professor Ferrier, 14. Professor Fraser was accordingly declared duly elected to the vacant Chair, amidst great applause.

Royal Medical Benevolent College.—The munificent sum of £100 has just been forwarded to the Treasurer by Otto Goldschmidt, Esq., at the same time expressing deep regret that Madame Otto Goldschmidt (née Lind) had not been able to sing for the benefit of this noble institution.

Bristol Royal Infirmary.—At a recent meeting of the Trustees, it was resolved:—"That the interests of this charity have been proved to require the assistance of a Professional Pharmaceutist, and that it is desirable the office of 'Honorary Pharmaceutist to the Bristol Royal Infirmary' be created, and that the Pharmaceutists of this City be invited to a position of honour on the staff of this establishment. That power be vested in the Committee to appoint an Honorary Pharmaceutist to this Infirmary, who shall purchase and be responsible for the selection, quality, and price of all the drugs and chemicals required in the Institution, such appointment to be continued during the pleasure of the Committee." The above-named officer has been appointed accordingly.

The British Association.—The *Cheltenham Looker-On* states that the first meeting of the Association will be held in the classical school-room of Cheltenham College, on the evening of Wednesday, August 6, when the Duke of Argyll will formally resign his office of President, and Dr. Daubeny will be installed as his Grace's successor; and will, thereupon, deliver the customary inaugural address.

M. Amussat.—The aged M. Amussat, the father of the recently-lamented Surgeon, has written a letter to the Académie de Medécine, stating that he knew it had been his son's intention, had he not been carried off so rapidly, to found a prize, as a mark of his gratitude to the Academy for having admitted him a member at an early period of his career, a fact to which he attributed much of his great success in practice. In fulfilment of his son's intention, M. Amussat offers a sum of 500 francs, every second year, as a prize in experimental surgery, based upon researches made on the dead body or living animals.

Prize of the Societe Medicale des Hopitaux de Paris for 1858.—The Prize of 1500 francs is proposed to be given for the best essay on "Sanguineous Congestions as observed in Fevers," the manner in which the subject is to be treated being detailed in *Union Médicale*, No. LXXIII. The sealed essays must be forwarded to the Secretary, Dr. Henri Roger, 15, Boulevard de la Madeleine, before the end of 1857.

Societe de Chirurgie de Paris.—The following are the office-bearers elected for the year 1856-7:—President, M. Chassaignac; Vice-President, M. Bouvier; Secretaries, MM. Desormeaux and Richard; Librarian, M. Verneuil; Treasurer, M. Houel.

Deaths in the French Army.—The French Government has just published an account of the number of deaths that occurred in the Army of the East between May 1, 1854, when the embarkation for Turkey commenced, to March 30, 1856, when the Treaty of Peace was signed:—

Officers of all ranks	1284
Non-commissioned officers	4403
Soldiers	56805
Total deaths	62492

The following are the returns of deaths of all ranks and arms which occurred during the above two years in the entire French army, not in the Crimea:—

In Algeria	5246
In Italy	1088
Baltic Expedition	1059
In France	13635
Total	21028

As the army in the Crimea was never more than about a fifth of the entire French army, the mortality during the Crimean campaign has been indeed enormous. Many single regiments lost more than 1000 men. Thus, the 7th Infantry lost 1662; the 26th, 1511; the 28th, 1505; the 98th, 1471, etc.—[We have reason to believe that the mortality was in reality much greater.—Ed. *M. T. & G.*]

West Indies.—At Bermuda, Her Majesty's ship, Malacca was under quarantine with several cases of yellow fever on board. The Termagant was signaled off Bermuda with no less than fifty cases of fever on board. The island continued, however, to be healthy. The Termagant had lost fourteen of her crew (in officers and men) since leaving Jamaica.

The Smithfield Market Site.—On Wednesday morning was issued the report of the committee appointed to inquire into the appropriation of the site of Smithfield, and the establishment of a new Metropolitan Meat Market. The committee are of opinion that the best appropriation for the general benefit of so much of the site of Smithfield as reverts to the Crown would be "to adapt it for the enjoyment and recreation of the public." They are also of opinion that a new metropolitan market for the sale of meat should be established in a central position. The committee do not believe that a well-regulated meat-market would be detrimental to the general health of the surrounding neighbourhood. On the contrary, subject to regulations for securing cleanliness and order, they think that a spacious market would be a desirable substitute for the crowded streets and squalid buildings, the site of which it would probably occupy.

Public Baths and Wash-houses in the City.—On Tuesday, at a Court of the City Commission of Sewers, a discussion took place on a motion, "That this Court is of opinion that the establishment of public baths and wash-houses would eminently promote the health and morality of the labouring classes of this City." The motion was ultimately agreed to unanimously.

Lisbon.—The cholera is still prevalent throughout Lisbon and the neighbouring districts. Taviroa has also been declared suspected.

Mortality Notabilia.—The return for the week that ended on Saturday furnishes a very favourable indication of the public health. The deaths registered in London were 959; viz., those of males 508, of females 451. In the corresponding weeks of ten years 1846—55 the average number was 971; but last week's deaths occurred in an increased population, and if the average is raised proportionally it will become 1068. It follows that the number of deaths, as now returned, is less by 109 than would have occurred if the average rate of mortality had prevailed. The deaths enumerated under the general head of zymotic diseases was last week 260; the corrected average of corresponding weeks is 297. With the summer heat, diarrhœa begins to prevail, and, as the season advances, usually takes the chief place among diseases of this class; the deaths from it rose from 16 and 29 in the two previous weeks to 48 last week.

Births.—The births of 774 boys and 751 girls, 1525 children, were registered; average 1330.

Meteorology.—The mean height of the barometer in the week was 29·658 in. The highest reading occurred on Sunday (the 6th), and was 29·88 in. The mean temperature of the week was 57·6°, which is 4·3° below the average of the same week in 38 years. With the exception of Sunday, the mean daily temperature was below the average on every day of the week; and on Tuesday, when it fell to 48°, the amount of depression below the average was so much as 14°. On that day the thermometer did not rise higher than 56·7°, and its lowest point was 46°. The highest readings in the shade and the sun occurred on Sunday, when the former was 79°, the latter 105°. Horizontal movement of air, 975 miles.

Deaths in Public Institutions for the Week ending July 12:—

	Males.	Females.	Total.
Workhouses	52	41	93
Prisons	..	..	..
Military and Naval Asylums ..	5	..	5
General Hospitals	31	24	55
Hospitals for Special Diseases ..	6	4	10
Lying-in Hospitals	1	..	1
Military and Naval Hospitals ..	2	..	2
Hospitals for Foreigners, etc. ..	2	..	2
Lunatic Asylums	4	..	4
Total	103	69	172

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	8	3	10	7	9
North	490,396	3	13	3	8	8	13
Central ..	393,256	2	5	7	8	9	8
East.....	485,522	3	5	9	8	15	13
South	616,635	..	19	3	9	9	6
Total..	2,362,236	8	50	25	43	48	49

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, July* 12, 1856.

Causes of Death.	In the Week ending Saturday, July 12, 1856. Deaths of Persons. At all Ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 57·6°						63·4°
All Causes	959	500	163	144	136	16	970·5
Specified Causes	958	500	163	144	135	16	959·4
Diseases:—							
1. Zymotic Class	260	201	21	23	14	1	270·3
2. Dropsy, Cancer, and others of uncertain seat	49	8	8	13	18	2	43·4
3. Tubercular Class	207	75	78	47	7	..	191·0
4. Of Brain, Nerves, etc. ..	93	47	10	13	22	1	107·3
5. Of Heart, etc.	44	3	11	14	16	..	30·3
6. Of Respiratory Organs ..	104	60	9	14	19	2	91·7
7. Of Digestive Organs ..	51	26	8	11	4	2	64·6
8. Of Kidneys, etc.	13	2	4	3	4	..	11·8
9. Of Uterus; viz. — Puerperal Disease, etc. ..	10	1	7	2	..	..	9·4
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	7	3	2	..	2	..	6·8
11. Of Skin, etc.	2	1	..	..	1	..	1·2
12. Malformations	3	3	..	..	..	..	3·3
13. Debility from Premature Birth, etc.	33	33	..	..	..	..	25·6
14. Atrophy	25	19	..	1	5	..	34·3
15. Age	29	..	..	..	21	8	37·6
16. Sudden	2	1	..	1	..	..	5·3
17. Violence, Privation, etc..	26	17	5	2	2	..	25·5
Causes not specified.. ..	1	..	..	..	1	..	11·1

BOOKS RECEIVED.

The Lost Solar System of the Ancients Discovered. By John Wilson. In Two Volumes. London: Longman and Co. 1856.

Twenty-sixth Annual Report of the Belfast District Hospital for the Insane. 1856.

TO CORRESPONDENTS.

Dr. R. H. Bakewell.—We must decline to insert the paper at present. Dr. Mouat is now in the Crimea, and we consider it to be unfair to insert attacks upon him in his absence.

Dr. Ranking's Clinical Lecture has been delayed only from want of space.

The continuation of Mr. Huxley's Lecture will appear next week.

Dr. Beale's Lecture will be published as soon as possible.

A Provincial Physician.—The examination of candidates for the Licence *intra urbem* is conducted by the Censors; that for the extra-Licence by the Elects.

Delta.—The Apothecaries' Hall of Dublin has exclusive jurisdiction over the Apothecaries' shops, and no person can open a shop in that city without an Apothecaries' licence.

Sanitas.—The only Medical officer attached to the Board of Health is Mr. Simon.

Debilis.—If sea-bathing can be borne before breakfast, it is the best time; but many persons are unable to bear any exercise in the morning before they have eaten a meal.

Mr. Sanford.—We know nothing of the office in question.

Dr. Peacock's Second Lecture has been received.

The proceedings of the Medical Society of Constantinople, which comprises the Medical Officers of the Allied Armies and the resident Practitioners, will shortly appear.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Please to inform me if there be anything irregular, or *contra bonos mores*, in relation to the Royal College of Physicians of London for a licentiate of the Apothecaries Company, in general practice in London, but having a Scotch degree of M.D., to place his initials to prescriptions that he may find both convenient and profitable to write occasionally for his patients, and for the latter to get dispensed at any chemist's and druggist's shop.

I am, &c.

July 14, 1856. An Old General Practitioner.

[Without pretending to be judges of Professional etiquette in such a case, we consider that a practitioner ought not to employ any initials implying that he is what he really is not.—Ed. *M. T. & G.*]

COMMUNICATIONS have been received from—

The Royal Institution; F.R.C.S.E.; Dr. Webster; Mr. G. M. Jones, Jersey; Mr. J. J. Fox; Mr. F. d'Alquen; Mr. Henry Smith; Dr. Beale; Mr. Nunneley; Mr. Anderson; Mr. W. Trenerry; Mr. W. Adams; An Old General Practitioner; Dr. G. W. Sullivan; Dr. Ranking; Mr. Albert P. Owen, Margate; Dr. B. W. Richardson; Dr. C. B. Radcliffe; Dr. Thornton; Dr. C. F. Moore; Dr. Alexander Henry; Dr. Williams, Worcester; Mr. Carsten Holthouse; Mr. Toynbee; Mr. John Hartley; Mr. J. Gardner; Messrs. Robertson and Scott; Mr. Bernard Brodhurst; Dr. R. H. Bakewell; A Provincial Physician; Delta; Sanitas; Debilis; Mr. Sanford; The Royal College of Physicians; The Society of Apothecaries.

APPOINTMENTS FOR THE WEEK.

July 19. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

21. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

22. *Tuesday.*

Operations at Guy's, 1 p.m.

23. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

24. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.

25. *Friday.*

Operations at the London, 1½ p.m.; Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

Brompton Hospital, 4 p.m.: Dr. Scott Alison, "On the Heart, and the Sphygmoscope."

ORIGINAL LECTURES.

LECTURES

ON

GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.,

Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

LECTURE VI.

(Continued from page 30.)

In especial relation with the branchial apparatus where it exists, and extensively distributed through the body, there is in almost all Annelids a system of vessels containing a clear fluid, which usually possesses either a red or a green hue, and contains no corpuseles of any kind. This system of vessels again is entirely closed, nowhere communicating with the perivisceral cavity, nor with the exterior. The walls of the vessels are usually thin and delicate, and are in some cases, *e.g.*, *Chlorœma*, contractile, even in the very smallest ramuscules. It is this coloured fluid which is generally regarded as the blood of the *Annelida*, the vessels in which it is contained being described as the "blood-vessels." In all the characters which have just been deseribed, however, this vaseular system and its fluid contents differ altogether from the true blood system, sueh as we know it in other divisions of the animal kingdom. Furthermore, in some few Annelids, sueh as those which constitute the genus *Apneumea* of De Quatrefages, there is no trace of any such system of vessels, and it is a general result of embryological researehes on the *Annelida*, that they, and the fluid which they eontain, only make their appearanee at a very late period. That distinet blood-vessels should be absent until an advaneed stage of development, or that they should never be developed at all, is nothing extraordinary, but the absence of any fluid which represents the blood under these eircumstances, is quite irreconeilable with what we know of the functions and nature of blood. My own opinion in fact is, that this system has nothing to do with the true blood system, which appears to me to be entirely represented by the eorpusculated fluid eontained within the periviseeral cavity. I am aware that this is in entire opposition to the current doctrine, and I shall have to diseuss the question of the real nature of these vessels more fully by and bye; but in the meanwhile, it appears to me that there can be no possible dissent as to the fact, that whatever the so-ealled blood vaseular system of the Annelids may represent, it is widely different from what we ordinarily know as a blood vascular system; and that it deserves a distinct denomination.

I propose, therefore, in order to avoid confusion, and leaving quite open for the present all questions as to its real nature, to call this system in the *Annelida*, and its unquestionable homologue in the *Echinoderms*—the "pseud-hæmal system."

The pseud-hæmal system varies very mueh in the arrangement of its great trunks; but they commonly eonsist of one or two prineipal longitudinal dorsal and ventral vessels, whieh are conneeted in each somite by transverse vessels. Where branchiæ exist, loops or proeesses of one or other of the great trunks enter them. The dorsal and the ventral trunks are usually rhythmically eontractile—and eontraetile dilatations at the bases of the branchiæ (*Eunice*) in portions of the lateral trunks (*Arenicola*), or in those which supply the proboscis (*Eunice Nereis*), have reeeived the name of "hearts." The direetion of the eontractions is usually sueh that the blood is propelled from behind forwards in the dorsal vessel, and in the opposite direetion in the ventral vessel; but the eourse which it pursues in the lateral trunks is probably very irregular. In *Chlorœma* I have observed cœeal eontraetile ramuseules depending into the periviseeral eavity in which the eontained fluid underwent merely an alternate flux and reflux; and an arrangement of a similar kind appears to exist in *Euaxes* and *Lumbriculus*. (Siebold, Lehrbuch, p. 212.) The principal trunks give off a great number of branehes, whieh ramify very minutely in some Annelids (*Eunice*), and may give rise to retia mirabilia (*Nereis*); but in many Annelida (*Protula*, etc.) there are hardly any branches and no minute eapillary ramifications.

In the terricolous Annelida (*Nais*, *Lumbricus*), long convoluted tubes eiliated internally, which have been variously described as glands and respiratory organs, are eonneeted with apertures in the somites, and at their opposite extremities terminate by free, eiliated, patulous extremities in the periviseeral eavity. I have observed short ciliated eanals opening externally upon the ventral surface at the bases of the parapodia in *Phyllodoce viridis*, and there are indications of the existence of similar organs in *Syllis vittata*. Whether the ciliated eanal extending along the ventral surface of the intestine, whieh I have described in *Protula*, is a strueture of the same order or not, I am not prepared to say.

The nervous system of the Annelida usually eonsists of a chain of ganglia,—one pair for each somite,—eonneeted together by longitudinal and transverse commissural bands, which diverge between the cerebral ganglia and the succeeding one, to allow of the passage of the œsophagus. The most important differenees presented by the nervous system of various Annelids, result from the varying length of the transverse eommissures. In *Vermilia*, *Serpula*, *Sabella*, these commissures are very long, so that two distinet and distant series of ganglia appear to run through the body, while in *Nepthys* the two series of ganglia are fused into a single cord enlarged at intervals. Every transitional eondition between these is observable in *Terebella*, *Aonia*, *Glycera*, *Phyllodoce*, and *Aphrodite*. A very extensive series of viseeral nerves in most Annelids supplies the different parts of the alimentary canal (e).

The reeognisable organs of sense in the *Annelida* are eyes and auditory vesieles. The former are usually very simple, consisting of an expansion of the extremity of the optie nerve, imbedded in pigment, and provided oeeasionally, but not invariably, with a distinet lens. In *Torrea vitrea*, however, De Quatrefages describes a very well developed and eomplex eye. The eyes are usually confined to the anterior extremity of the body, and to the prestomium where one exists; but in the remarkable genus *Polyophthalmus*, the same excellent observer diseovered, besides the ordinary eephalic eyes, a double series of additional visual organs, one pair being allotted to each somite. Ehrenberg has deseribed two caudal eyes in *Amphicora*, and De Quatrefages has shown that similarly placed eyes exist in three other species of Annelids, two of which are elosely allied to *Amphicora*, while the other is an errant form, near *Lumbrinereis*. These eurious ereatures swim about with the caudal extremity forwards.

Auditory saes eontaining many otolithes have been observed upon eaeh side of the œsophageal aperture in *Arenicola*, and similar organs have been notieed in other *Tubicola;* but hitherto their existenee has not been eertainly determined in the *Errantia*.

The Genitalia of the typieal *Annelida* are exeessively simple in their structure; indeed, speeial reproduetive organs can hardly be said to exist in most, the generative products being merely developed from some part of the walls of the periviseeral eavity into whieh they eventually freely float, making their way out in a manner which is not quite understood at present; probably, however, through temporary or permanent apertures at the bases of the parapodia. As a rule, the Annelids are dioeeious, but the *Terricola*, and, as I recently pointed out, at least one speeies of *Protula*, are hermaphrodite. The ova undergo their development within the body of the parent in some species of *Eunice;* in pouches attached to the body in *Exogone;* in masses of gelatinous matter which adhere to the tubes of the vermidom in *Protula;* beneath the elytra in *Polynöe cirrata*, while in other eases they appear to become, almost immediately, free ciliated embryos. In many Annelids the process of yelk division is followed by the development of a blastoderm, whieh at once invests the whole yelk, and assumes the form of a shut sac before the appearanee of any members (*Hermella*, *Terebella*, *Protula*); but in other eases the blastoderm takes the form of a disc, which gradually elongates, only partially investing the yelk, and beeomes divided into somites with their appendages long before the yelk is completely eovered in, or the dorsal surface of the body complete (*Exogone*, *Cystonereis*).

In most eases the embryo leaves the egg uniformly covered

(e) See for full details on these and other matters connected with the Anatomy and Physiology of the Annelida, the numerous, excellent, and beautifully illustrated Memoirs of De Quatrefages in the *Annales des Sciences Naturelles*.

with cilia; but these gradually disappear over the greater part of the body, attaining at the same time a greater size and strength in a narrow band of the circumference just behind the anterior extremity of the body, and immediately in front of the mouth. In *Terebella* a second ciliated circlet remains upon the terminal segment; and thus we have a larva with two ciliated circlets, one in front of the mouth, and therefore not traversed by the alimentary canal; the other having the alimentary canal in its axis.

That portion of the body in front of the anterior ciliated circlet becomes the prestomium, which, however rudimentary in the adult condition, appears always to exist in the larvæ. That, by which this ciliated circlet is carried is the peristomium. The posterior part of the body becomes divided into the somites, of which there are at first very few, new ones being constantly added between the last somite and the pygidium.

The parapodia and other appendages appear as buds from the sides of the somites, which gradually assume their perfect form. The cephalic tentacles of *Terebella* seem to be repetitions of the prestomial tentacle of *Polynöe*.

With regard to the development of the internal organs, the most noteworthy fact is that the pseud-hæmal system does not make its appearance until a very late period.

Many Annelids are now known to multiply by a process of zöoid development, which in some cases appears to be a combination of fission with gemmation; in others, to approach very nearly pure fission or pure gemmation. The result is, not infrequently, the formation of long chains of connected zooids.

One of the methods of multiplication of *Nais*, described by O. F. Müller, and that which De Quatrefages has observed in *Syllis prolifera*, are acts of nearly simple fission, the animal dividing near its middle.

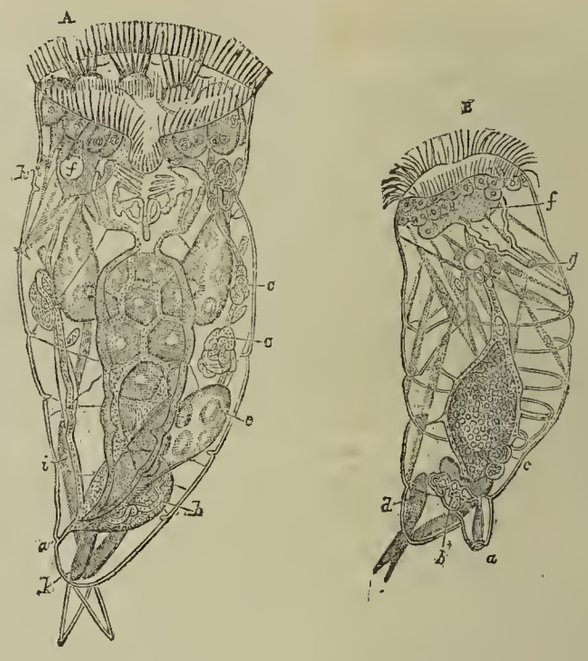
In *Myrianida*, Milne Edwards has described the occurrence of a sort of continuous budding between the ultimate and penultimate segments, where new segments are formed until the zöoid has attained its full length. The second method of multiplication in *Nais*, described by O. F. Müller appears to be similar to this, or it may be identical with the following. Schulze has observed, in fact, that when a *Nais* has divided into an anterior and posterior zöoid, the last somite of the former gradually enlarges, and becomes divided into new somites, the anterior of which give rise to a head. A new zöoid is thus developed between the previously existing ones. This process is repeated in what was the penultimate, but is now the ultimate somite of the anterior zöoid; and again in the penultimate somite when it has, in the same way, become terminal.

Frey and Leuckart and Krohn have shown that *Autolytus prolifer* multiplies in a somewhat similar manner; but, instead of each new zöoid being formed at the expense of an entire somite, it is developed from only a portion of one. Finally, I found in *Protula Dysteri* that, when the *Protula* had attained a certain length, all the somites behind the sixteenth became eventually separated as a new zöoid; but the development of the latter is not mere fission, as one of the earliest steps in the process is the enlargement of the 17th somite, and its conversion into the head and thorax of the bud. Sars long ago described a similar mode of multiplication in his *Filograna implexa*, a very closely allied form.

In *Syllis* and in *Protula*, the producing and the produced zöoids alike develope generative products, but in *Autolytus*, Krohn has shown that the primary producing zöoid remains asexual, the secondary produced zooid having a somewhat different form, and alone giving rise to ova and spermatozoa. This is the only case of "alternation" at present known in the Annelida.

The *Rotifera*.—We have just seen that many Annelids pass through a larval condition, in which the body exhibits mere indications of a division into somites, and in which the appendages are entirely absent, the locomotive function being performed by a circlet of cilia, disposed around the anterior part of the body. Now, there is a large group of very remarkable organisms, the minute "wheel animalcules" or *Rotifera*, whose whole organization demonstrates, not merely their annulose nature, but their position among the *Annuloida*, and which exhibit precisely the same indistinct segmentation, the same general absence of appendages, and whose means of locomotion are in like manner confined to one or two ciliated circlets at the anterior part of the body. The connexion between the *Annelida* and the *Rotifera* is further illustrated by such remarkable forms as the *Polyophthalmus* of De Quatrefages, a true Annelid, which nevertheless possesses on each side of the head a ciliated lobe, capable of being voluntarily protruded and retracted, and presenting a close resemblance to the trochal disc of a Rotifer.

Fig. 4.



Hydatina senta, after Cohn.

A. Female. B. Male. *a*. Cloaca. *b*. Contractile vesicle. *c*. Water vessels. *e*. Ovary or testis. *f*. Ganglion. *g*. Setigerous pit.

Hydatina senta, one of the largest of the *Rotifera*, is also worthy of being selected as a typical form on many accounts, not the least important being, that its organization has been repeatedly investigated by the best observers. I will borrow from the excellent memoir (d) of the latest of these, Dr. Cohn, the following account of its structure:—

The female *Hydatina senta* has the form of a conical sac, $\frac{1}{30}$th to $\frac{1}{40}$th of an inch long, whose anterior end is broad and truncated, while the posterior ends in a forked 'foot.' The circular outline of the anterior extremity is interrupted below by the oral aperture, and is fringed by a continuous series of cilia, which pass into those lining the mouth. Within this are two other circular series of cilia, the innermost, like the outer, uninterrupted, while the middle set are much longer, and attached five or six together, upon some eleven distinct elevations. By the action of their cilia, not only is the body rapidly propelled, but nutritive matters are brought to the mouth. Their regularly successive contraction gives rise to the well-known appearance of a revolving wheel, to which the Rotifers owe their name, and from which I proposed, in my memoir on *Lacinularia socialis*, to denominate the discoid anterior extremity of the body, the *trochal* disc. The body is marked by nine transverse grooves or folds of the integument produced by as many circular muscles, which appear to be fastened to the parietes only at particular points of the circumference. The chitinous integument is thin, but very elastic; and it is in consequence of the latter property that the body is restored to its proper shape, after the contraction of these circular muscles, and of the longitudinal muscles. Of the latter, Ehrenberg has described nine; they act as retractors of the foot and of the trochal disc, and in modifying the form of the body. As in the *Annelida*, none of the muscles exhibit any transverse striation in this genus, though in others, *Polyarthra*, *Pterodina*, etc., they are distinctly striated. The oral cavity leads into a muscular pharynx, provided with peculiarly arranged teeth; of whose general structure in the *Rotifera* I will speak more particularly by-and-by. A short œsophagus connects this with the wide and pyriform stomach, which passes gradually into a narrower intestine, opening into a valvular cloaca, placed upon the dorsal surface of the hinder extremity of the body (Fig. 4 a).

(d) Ueber die Fortflanzung der Raderthiere, von Dr. F. Cohn, in Breslau. Siebold and Kollikers Zeitschrift fur Wiss. Zoologie. 1855.

Two bodies, called by Ehrenberg the pancreatic glands, are situated one upon each side of the broad cardiac extremity of stomach, into which they probably open.

Connected with the cloaca in *Hydatina*, as in all *Rotifera*, is a very remarkable system of vessels peculiar to the *Annuloida*—the so-called 'water-vessels.' It consists of a large vesicle placed in the ventral part of the abdominal cavity, and opening into the cloaca (*b*). From its neck two delicate and transparent canals (*c*) arise, and pass up upon the right and left sides of the body to the trochal disc, in which they terminate in coils or free ends attached to its walls. The lateral canals are much longer than the body, and are, therefore, disposed in coils here and there, pursuing a tolerably straight course in the intervals. Each lateral canal gives off about four delicate branches, which terminate in peculiar hollow conical enlargements, open at their extremities, and lined internally by vibratile cilia. According to Leydig these ciliated short branches are open at their extremities, and the action of the cilia gives rise to a current directed towards the lateral canal, and therefore, eventually, towards the contractile vesicle, in the great majority of the *Rotifera*. In *Lacinularia* both Dr. Leydig's observations and my own render the existence of these open terminations doubtful.

The sac undergoes rhythmical contraction, by which its fluid contents are every now and then expelled; but how far these fluid contents are forced out of the cloaca, and how far into the lateral canals, does not appear to be clear; nor have we, at present, any certain knowledge of the functions of the 'Watervascular' system. That they are important can hardly be questioned, inasmuch as an undoubtedly homologous system of vessels attains, as we shall see, a very great development in the *Trematoda* and *Turbellaria;* while there is much plausibility in Leydig's suggestion (e), that they are also homologous with the 'ciliated canals' in the Annelida already referred to. One thing, however, is certain: they have nothing to do with the reproductive organs, which are very distinct, and are located in separate individuals. In the female, which is at present under description, the ovary (*e*) is a cordate mass, with its apex directed backwards, which lies between the contractile vesicle and the alimentary canal. The delicate membrane coating the ovary is continued back into the oviduct, which opens into the cloaca.

The nervous system is represented by a large hemispherical ganglion (*f*) placed at the anterior extremity of the body towards the dorsal surface, and close behind the trochal disc. Nervous cords run from this ganglion to different parts of the body, and two especially remarkable ones pass to a sharply-circumscribed circular space looking almost like an aperture, but in reality closed, (*g*) which has a bundle of motionless cilia, or rather setæ, on its outer side. Nerves are said to pass to two other depressions of a similar character. No structures beyond those just described are certainly known to belong to the nervous system.

The male *Hydatina senta* (B) is not more than half the size of the female, to which in general form he is otherwise similar. There is, however, no depression in the margin of the oral disc corresponding with the oral aperture, since this, like all other parts of the alimentary canal, is totally absent. Neither, of course, is there any anal aperture, but the contractile vesicle of the watervascular system apparently opens, in common with the genital apparatus, in the same region as in the female. The watervascular and nervous systems present no essential differences from those of the female.

The testis is a large, oval, thick-walled sac, fastened by means of contractile bands to the parietes of the body, one passing from its apex to the trochal disc. Posteriorly the testis opens into the ciliated cavity of a tubular projection of the integument, the penis, which can be protruded or retracted by appropriate muscles, and is usually invisible unless the animal be subjected to pressure. A reniform 'prostate' surrounds the base of the penis.

Such is the structure of *Hydatina senta*. The other forms of *Rotifera*, however various, are all referable to modifications of, or additions to, the organs which it possesses. Thus the integument in *Brachionus* is developed into a sort of shield, or *lorica*, which defends and incases the body, leaving only the anterior and posterior extremities free. *Stephanoceros* and *Lacinularia* secrete a gelatinous investment. *Melicerta* strengthens this investment with little pellets of foreign matter, so as to form a strong cell. Again, while most Rotifers are free, or at least adhere only for a while by their terminal pincers, those just mentioned are fixed. The trochal disc undergoes great changes of form. In *Hydatina*, as we have just seen, it is circular, and its margin is skirted by two distinct continuous bands of cilia, the one immediately in front of, the other behind the mouth. If a line be drawn through the mouth and anus, representing the axis of the body, then the latter ciliated circlet will be traversed by this axis, while the former, like the anterior circlet in an Annelid-larva, will be altogether anterior to the axis. If the ciliated circlet through which the axis passes be called the trochal circlet, *par excellence*, and the other the pre-trochal circlet, then we shall have the anterior face of the trochal disc as a pre-trochal region, while the body behind the circlet is post-trochal. In *Lacinularia* both trochal and pre-trochal circlets exist, and the trochal disc is wide, and horse-shoe shaped. In *Melicerta* the trochal disc is four-lobed, and in consequence of the enormous size of the oral aperture, the plane of the pre-trochal, and of a great part of the trochal circlet is parallel with the axis of the body when expanded. In *Brachionus* the trochal circlet fringing the edges of the trochal disc is horse-shoe shaped, but the pre-trochal circlet is produced into three lobes or processes, which stand out perpendicularly to the surface of the trochal disc. In *Philodina* the trochal circlet alone exists, and is folded over upon itself; and in *Stephanoceros* it fringes the edges of a number of tentaculiform processes into which the trochal disc is produced, so as to give the whole animal somewhat the appearance of a Polyzoon.

The simplest and most scantily ciliated trochal disc is that possessed by *Notommata tardigrada*, where, according to Leydig, the cilia merely cover the oral cleft.

The *Rotifera* again, vary much in the details of the structure of their muscular pharynx, or *mastax*, as it has been conveniently termed by Mr. Gosse, and in its armature. In *Flosculacia* and *Stephanoceros*, a proventriculus or crop-like dilatation precedes the *mastax*. In other cases the oral canal opens directly into it, and the food is immediately subjected to the action of two pairs of strong teeth, moved by the muscles which constitute the chief thickness of the walls of the mastax. Of the four principal pieces, the two larger (mallei), work upon the two smaller, which constitute the so called incus. All these organs are mere thickenings of the chitinous lining of the alimentary canal like the pharyngeal teeth of the *Annelida* (*e.g. Eunice*) and like the latter have no claim to the title of jaws, which should be reserved for modified limbs.

All female Rotifera possess teeth (f), but in those of certain species of *Notommata*, the intestines terminate in a cœcum, and there is no anal aperture. In the males of all *Rotifera* at present known, the alimentary canal is entirely abortive. As Leydig has it, they devote themselves entirely to the "Minne-dienst."

The nervous system consists in all *Rotifera* of a single "cerebral" ganglion, whence nerves radiate, situated at the anterior part of the body, either on the side *from* which the mouth is turned, as in most *Rotifera*, or on the same side and immediately behind it, as in *Lacinularia* and *Melicerta*.

Dr. Leydig and I writing contemporaneously upon *Lacinularia* in 1853, described the nervous system differently. In his excellent monograph already cited, however, Dr. Leydig, has, with great candour, withdrawn his own view and adopted mine. I mention this particularly, as Professor Owen in his Lectures on the Invertebrata, has adopted Leydig's now forsaken ideas, without any reference to my account of the matter.

The recognised organs of sense in the *Rotifera* are of two kinds, firstly, eyes; and secondly, organs homologous with the setigerous pits in *Hydatina*.

The eyes are masses of pigment usually in close apposition to the ganglion, and are either single or double; in the former case rarely, but in the latter always, according to Leydig, being provided with a rudimentary lens or vitreous humour. In some Rotifers, such as *Lacinularia*, the eyes, which are present in the locomotive young, become abortive with age.

The setigerous pit in *Melicerta*, *Rhilodina*, etc., assumes the form of an elongated process and projects as the so-called spur or *calcar*, of which either one or two may be present.

(e) Ueber den Bau und die Systematische Stellung der Räderthiere. Von. Dr. Franz Leydig. 1854.

(f) *Icthydium*, *Chætonotus*, *Cyphonautes*, appear not to be Rotifers at all.

A third organ, which I believe to be a sensory apparatus of some kind or other, is the "ciliated sac" which exists in connexion with the ganglion in *Lacinularia* and *Melicerta*. I hardly think it likely that, as Leydig suggests, this is a structure of the same order as the setigerous pits.

The ova are impregnated within the cavity of the body, the act of copulation having been witnessed, and bodies which now turn out to be the spermatozoa of the males having been seen floating in the perivisceral fluid. How they came there, if there be really a complete oviduct, such as is said to exist, though, I confess, I could see nothing of it in Lacinularia—is a difficult point. In the ordinary ova the vitellary membrane is delicate and transparent; and the yelk, after undergoing the ordinary process of division, is converted into an embryo, whose form does not differ very widely from that which it will eventually attain. The males, however, differ not merely in internal structure, but in their form and in their smaller size, from the females; and hence, as the latter in many cases carry about the ova attached to their bodies, it was supposed at one time that the males were the eggs of another species, which the mother had attached, cuckoo-wise, to a stranger.

Under conditions which do not as yet appear to be thoroughly understood, bodies of a very different character, the so-called "winter" or "ephippial" ova are developed from the ovary. I have seen no evidence as yet brought forward sufficient to shake my conviction, that the description which I gave of the mode of development of these bodies in *Lacinularia* is correct; and, until this is the case, I must continue to believe that the ephippial ova are essentially buds. We know nothing at present of the further changes which they undergo.

LECTURES

ON

THE MINUTE ANATOMY OF THE LIVER.

DELIVERED AT

King's College, during the Winter Session, 1855-56.

By LIONEL S. BEALE, M.B.,

Physician to King's College Hospital, and Professor of Physiology and General and Morbid Anatomy in King's College, London.

LECTURE VI.—(*Conclusion.*)

Epithelium of the small Ducts—Dr. Handfield Jones's views—General considerations concerning the Liver of Vertebrate Animals—The Vertebrate and Invertebrate Liver compared—The Liver and Kidney compared—The Position of the Liver as a Secreting Organ—Summary.

GENTLEMEN,—When we last met I endeavoured to prove that the minute ducts were immediately continuous with the tubular network in which the hepatic cells lie, and I also called your attention to the fact, that the diameter of the small ducts was very much less than that of the tubes of the cell-containing network into which it may be said they are prolonged. Now this narrowing of the duct before it becomes connected with the *secreting* portion of the organ, is seen in other glands; thus in the kidney, the total diameter of the *straight and ductal portion* of the renal tube is considerably less than that of the *convoluted* and *glandular part*. The same point is observed in many follicular glands. In the liver where the secretion is highly elaborated, and slowly removed from the secreting structure in a concentrated form, we should naturally expect to find the contrast between these two different portions of the gland structure even more remarkable than in the examples referred to. This is really the case.

I hope to-day to be able to finish what I have to say upon the minute anatomy of the liver. The discussion of the subject in detail has been necessarily somewhat tedious, but at the same time I venture to hope that it has not been found altogether devoid of interest.

This large and important organ presents us with an example of gland structure in which the different tissues of which it is composed are arranged in the most advantageous manner it is possible to conceive. The secerning cells and the blood being brought into the closest proximity possible. The blood containing the crude elements is separated from the cells whose office it is to elaborate these constituents, only by the intervention of the thin capillary walls a membranous partition, so delicate that its existence is disputed by many great authorities. The areolar tissue, which serves to support the capillaries of most glands, is here absent, and the wall of the capillary comes into close contact, and in many instances is incorporated with the thin transparent membranous tube in which the liver cells lie.

Epithelium of the Smaller Ducts.—The larger ducts, as is well known, have a thick lining of columnar epithelium; but the cells become shorter towards the smaller channels. In the smallest tubes, the cells of epithelium are somewhat flattened, and are of a circular or oval form, which, in many instances, is due to the ducts being much stretched in preparing the specimen. These minute cells have a pale, granular appearance, and it is not often that a nucleus can be distinctly seen within them. The quantity of this epithelium in the smaller ducts varies very much; sometimes it completely lines the tube; in some instances it is so abundant as apparently to leave no distinct cavity in the duct, (a condition I have met with in the rabbit, turkey, and fowl;) while it is not uncommon to find some of the finest ducts containing only a very few cells scattered at irregular intervals over the basement membrane of which the small ducts are entirely composed. In a perfectly normal condition, when the minute ducts are undisturbed by manipulation and are examined in a proper medium, they are generally seen to be lined by epithelium; but from the extreme minuteness of these ducts, and the tenuity of their walls, it is not surprising that we should fail in making out distinctly their epithelium in every instance in which we search for it.

It is not easy to lay down with precision the exact point at which this change in the character of the epithelium occurs; but it appears to me that the alteration is a gradual one, and that the cells become shorter and shorter as the diameter of the ducts diminishes. In ducts of the $\frac{1}{600}$th of an inch, and in smaller ones, the epithelium presents the characters above described. My friend, Dr. Handfield Jones, has arrived at a totally different conclusion with reference to the nature of the smallest ducts, and the epithelium which is contained within them. The latter he regards rather in the light of nuclei, "which are set close together in a subgranular or homogeneous basic substance;" and to these nuclei he assigns the important office of absorbing the material which is secreted by the liver-cells, and which he considers bathes the terminal extremities of the ducts in which this epithelium is contained, or with which it is in direct continuity. Dr. Handfield Jones also considers that there is seldom any trace of basement membrane to be found in ducts having epithelium of this character, and, the basement membrane imperceptibly ceasing, that the ducts terminate in this epithelium. Upon such a view, however, I should be at a loss to explain a number of appearances which I have often seen; and I have been led to a totally different conclusion upon this point, which I fully discussed when we last met. That view seems to me to be the only one with reference to the termination of the ducts compatible with the facts which have been observed. When the ducts are injected according to the method which I described, you may see very distinctly, with a quarter of an inch object-glass, the epithelium and the injection, in narrow tubes, often not more than the $\frac{1}{3000}$th or $\frac{1}{2000}$th of an inch in diameter. Still the investigation is a difficult one, and the question at issue of such a delicate nature that it would be wrong in me at this time to speak too confidently in favour of the results of my own work, or in the least degree to appear to disparage the conclusions which other observers have arrived at,—no matter how essentially these conclusions may be at variance with my own, or how strongly I may feel convinced in my own mind of the truth of my own deductions, and the correctness of the data upon which they have been founded. I shall only ask you to bear in mind some of the points to which I referred in the last Lecture, and compare the diagrams which I show you with the actual preparations which you have had an opportunity of seeing.

To return to the consideration of the nature of the epithelium lining the smallest ducts. We shall find that this ductal epithelium does not pass by insensible gradations into the secreting epithelium or hepatic cells, but ceases abruptly at the point where the narrow duct becomes continuous with the wide secreting cell-containing network. Nowhere, that I know of, can be seen, in so small a space, a more striking

contrast between secreting epithelium, and that which lines an efferent canal. The large characteristic cell of *glandular epithelium* ceases at the point where the small cell of *protective* or *ductal epithelium* commences.

The arrangement here referred to is very similar to that which is met with in the gastric gland. It is only in the lower part (stomach tube) that the cells of spheroidal epithelium, which alone there is every reason to believe take part in the secretion of the gastric juice, are found. The upper portion or duct (stomach cell) is lined with columnar or subcolumnar epithelium (a). In these glands the secreting cells are not arranged with any order or regularity round the basement membrane of the tube, as is the case in the kidney, but appear in the ordinary state of the parts to fill its cavity, so that the secretion having escaped from the cells, must pass off by the slight interstices which exist between them. As I have before observed, the same irregularity occurs in the arrangement of the secreting cells in the tubes of the liver, and also, but in a less remarkable degree, in the secreting portion of many other glands, as the pancreas, the lacteal glands, and sweat glands.

The epithelium of the small ducts presents much the same character in all the animals which I have examined. In the cat it is shown in this diagram; and in this one in the lamb. Here you have a good opportunity of contrasting the characters and size of these small granular cells with the large hepatic cells.

Before I conclude the subject of the minute anatomy of the liver, permit to ask your attention to a few general considerations which seem to me of some interest.

The vertebrate liver.—The vertebrate liver may be looked upon as consisting essentially of two distinct systems of channels arranged so as to form networks which mutually interlace with each other. In one of these networks lie the secreting cells, often arranged so as to form only a single row, which is, therefore, surrounded on all sides by the blood containing the elements from which the bile is formed. The fluid bile, escaping into the network of tubes, flows towards the surface of the lobule where the ducts lie. In the other network flows the blood, but in a precisely opposite direction to that which the bile takes.

The *portal blood* reaches the capillaries of the lobule at numerous points of its surface, and all the blood from these numerous sources at the circumference must pass through capillary vessels which converge towards the single radicle of the hepatic vein in the centre; and hence it follows that the circulation of this blood must be much more rapid in the central part of the lobule than near the portal surface. This perfectly harmonizes with many anatomical points which I have before alluded to. The blood which has just arrived from the intestines, loaded with recently absorbed constituents, flows very slowly, in order to give time for the action of the liver cells upon it, and for the removal of some of these substances from it. When these have been separated, its slow course is no longer necessary, and as it becomes purer it flows with increasing velocity.

By the very simple and beautiful combination of the elementary tissues of the liver, so as to form minute portions resembling each other, or *lobules*, the most complete changes in the circulating blood are ensured, while the circulation is retarded in the least possible degree compatible with the alteration to be produced, and at the same time the anatomical elements, through the intervention of which these changes are effected, are combined in such a manner as to occupy the smallest possible amount of space.

The cells in all parts of the network have no doubt the power of forming bile, but in different degrees, and even those quite close to the centre of the lobule, have often been observed to be filled with yellow granules. There is no reason for supposing that the secretion is passed from cell to cell, and at last into the duct; for, if this were the case, we should at least expect to find greater difference in the cells near the ducts than really exists; and it must be remembered that in many animals in a state of perfect health, no difference whatever is to be demonstrated. The cells at the circumference usually contain a much larger quantity of oil than those nearer the centre, which is just what we should anticipate when we recollect that the portal blood, rich with the freshly absorbed constituents of the food, first reaches these marginal cells. The direction of the circulation is the reverse of that which we should expect to find if the secretion were transmitted from cell to cell, as most authorities in the present day insist upon. For if this were really the case, it seems to me that we should be forced to admit that the blood flowed through the superficial part of the capillary network to no purpose. On the other hand, the anatomy of the organ almost forces upon us the conclusion, that the cells nearest to the duct take the most active part in the secretion, and that the blood gets gradually rendered more free of substances from which the bile is formed, as it travels along the capillary tubes from circumference to centre, with a gradually increasing rapidity of movement. Lastly, the assumed absence of any channel in which bile could flow, ceases to be a tenable objection, since it has been shown to be comparatively easy, provided that certain precautions be observed in conducting the operation, to force injection into a channel which does exist. For if, by artificial means, fluid can be made to pass in an opposite direction, within the tubes of this cell-containing network, up to the hepatic vein, how very sure may we feel of the existence of such a channel along which the bile flows during the life of the organ.

The alteration in volume which the cells may be made to undergo by artificial means, indicates how very simply a channel may be produced where the organ is in its natural condition. The two sets of tubes mutually adapt themselves to each other; if the secreting tubes be unusually empty, the vascular tubes admit more blood, and it has been already pointed out what a very large quantity of fluid the capillary vessels of the liver are capable of containing over and above what may be assumed to be their normal quantity, and also how the distension of the vessels, by forcing in fluid in one direction, promotes the passage of liquid through the cell-containing network in an opposite direction. Careful reflection upon some of these points will assist us in comprehending many of the morbid changes which take place in the liver.

The bile having arrived at the smallest ducts, without doubt undergoes further changes. It is not improbable that the oxygen brought by the arterial blood which flows in the vascular network, through the meshes of which the ducts pass, exerts some influence upon it. This, however, has not been proved. The most important alteration which the bile now undergoes, is concentration. Water is removed, and the proportion of solid constituents gradually increases as the bile passes slowly along the thin-walled, tortuous ducts. It is this change which serves to explain the comparatively slight increase of diameter of the ducts, in proportion to the great number of branches which they receive. Thus the great apparent disproportion between the vast amount of secreting structure and the small efferent ducts, vanishes, when we consider how highly concentrated the bile becomes before it reaches the large duct. Bile contains a larger proportion of soluble constituents than any other liquid secretion.

The manner in which this concentration is effected has been alluded to. In those animals provided with a gall-bladder, it has been shown experimentally by Bidder and Schmidt that much fluid is absorbed while the bile remains within this viscus. It is interesting to observe, that the arrangement of vessels and lymphatics in the portal canals and transverse fissure of the liver, is similar to that which is met with in the gall-bladder. The bile is brought into very close relation with the vessels, by entering the little cavities, *parietal sacculi*, in the coats of the ducts, and in the vasa aberrantia, which are always surrounded by numerous branches of the vein and artery, and by lymphatic vessels.

In some instances the inspissation of the bile is carried to an abnormal extent, and small, tolerably hard granules of biliary matter are eventually produced. These often form the nuclei of gall-stones, and sometimes accumulate in great numbers in a branch of the duct. Although a calculus might become impacted in a duct, the free transmission of the bile is fully provided for by the numerous anastomosing branches which were described in my third lecture, just external to the duct itself.

The Vertebrate and Invertebrate Liver compared.—It has been remarked by many writers, that there is a great difference of structure between the livers of the vertebrata and the invertebrata; but the more carefully the vertebrate liver is examined in its minute details, the stronger becomes the evidence that both resemble each other in many essential particulars. Nay, in some of the lowest of the invertebrata, the general minute anatomy of the liver closely resembles that of

(a) Todd and Bowman's Physiology.

the organ in the highest animals. In the large intestine of the common frog, a small entozoon of the Trematode order is very often met with. In some of these, which were taken from the body of a starved frog, the biliary follicles and their ducts were very distinct. The cells in their interior contained colouring matter, but very little oil, consequently the follicles were somewhat shrunken, and could be examined very successfully. The follicle terminates in a cœcal extremity, but is prolonged at the opposite end into a very narrow duct, which is soon joined by the ducts from other follicles. Suppose the cœcal extremities extended, communicating with each other, to form a network, and an appearance closely resembling the drawing of the connexion between the ducts and cell-containing network would result. The cells appear to contain colouring matter and oil, either in a granular state or in the form of distinct globules, in all classes of animals; their general character is very similar, and they lie in the tube or follicle which contains them without order or regularity, their form being influenced to a considerable extent by mutual pressure.

In the different members of the animal creation, the liver-cell preserves certain constant characters; and, in the development of the young animal, this cell soon attains the characters which it bears throughout life, except that it contains a great number of nuclei at this early period. The comparison is exceedingly interesting, as showing the great similarity in the essential arrangement of the liver in animals occupying such opposite positions in the animal scale.

The liver and kidney compared.—The bile and the urine, the two most important secretions in the body, have often been contrasted, and their opposite or complementary nature has been pointed out. It is interesting to compare the anatomy of the glands which secrete these dissimilar fluids.

The kidney is an organ destined for the rapid removal of substances, the most important of which, at least, exist preformed in the blood, largely diluted with water. A tortuous tube of basement membrane, closed at one end, lined in its interior with cells, but having a free central cavity, is the essential apparatus by which this is effected. At the closed extremity of this tube is a special provision for the separation of water, which, as it passes down the central cavity, readily dissolves away the soluble matters which the cells have separated from the blood. The solution passes down the tube, and, without undergoing any further change, is very soon removed altogether. So very important is the rapid removal of these substances from the organism, that in those animals in which a sufficient quantity of water for their complete solution cannot be afforded, there exists a most perfect and beautiful arrangement by which this object is attained. Not only is there a cavity throughout the entire length of the tube, but the cells around it are furnished with vibratile cilia, by the action of which even solid particles are whirled down the tube with a velocity greater than that of the circulation of the blood in the capillaries.

In the liver, on the other hand, we have an organ not only for the separation of substances very recently introduced into the organism from the portal blood, but for the slow elaboration and conversion of these into very different products which serve very important ulterior purposes in the economy, and which are principally re-absorbed into the blood, while, at the same time, it is probable that a change occurs in other constituents of the blood in its passage through the liver. A network of delicate tubes containing large secreting cells in their interior, arranged irregularly, and nearly filling the cavity, without leaving any well-defined channel for the passage of the secretion, is the essential apparatus for the formation of the proper secretion of the liver. The secretion, when formed, may remain for some time in the tubes, but slowly makes its way in an opposite direction to that in which the blood flows, through very narrow channels, either between the cells themselves, or between these and the walls of the tube, until it arrives at the narrow tubular duct. Still passing slowly along these delicate tubes, it becomes exposed to the influence of arterial blood, while much of its water, probably holding in solution substances capable of permeating the basement membrane in this direction, is re-absorbed by the veins and lymphatics, which form an intimate plexus round the ducts. It has been shown how effectual is the provision for the concentration of the bile throughout every part of the ducts from their commencement to their termination. Unlike the urine, the bile undergoes important alterations after it has been set free by the cells in its course along the ducts.

Position of the liver as a secreting organ. The liver, then, is to be classed with the true glands. In all classes of animals it consists of a formative portion and of an efferent duct, the epithelium in these two situations presenting wide and characteristic differences. It contains both absolutely and relatively a greater proportion of true secreting structure than any other organ. Its secretion is of the most complex chemical composition, and differs more widely from any known constituents of the blood than any other secreted product; so also it seems to serve a greater number of important purposes in the economy, while from the most recent experiments it appears that the amount of bile separated by the liver in twenty-four hours is larger than that of any other liquid secretion, and at the same time it contains a higher per-centage of solid matter.

The early appearance of the liver,—its large size both in the embryo and in the adult, its almost universal presence and general similarity of structure in all classes of animals, the complex and highly concentrated nature of its secretion and its large quantity, justify us in regarding the liver as the most important glandular organ in the body. The large size and vast number of its cells, their close proximity to the blood, and the beautiful arrangement of the other anatomical elements of which it is composed, render it, I think, the most perfect example of gland structure with which we are acquainted.

Before we leave the subject of the minute anatomy of the liver, let me very briefly recapitulate some of the most important points which I have brought under your notice in the last few lectures, for we shall find them of the first importance when we come to consider the nature of the morbid changes which this organ undergoes.

SUMMARY.

The livers of all vertebrate animals are penetrated in every part by two sets of channels, which alternate with each other. One series, *portal canals*, contains a branch of the portal vein, hepatic artery, and hepatic duct, *interlobular;* and the other series, *hepatic venous canals*, is occupied by a single branch of the hepatic vein, *intralobular*.

The vessels ramifying in the portal canals are ultimately distributed in such a manner that they serve to divide the organ into little masses, and thus map out spaces, or *lobules*, each of which contains all the structural elements of the organ, and may be regarded as an elementary liver.

In the intervals between the fissures by which the portal vein, artery, and duct are conducted to the lobule, its capillary vessels and its secreting structure are continuous with those of adjacent lobules.

The size and form of the lobules differ much in different animals; but their essential structure is the same in all, except in the pig, in the Polar bear, according to Müller, and in the octodon Cummingii (one of the rodents,) according to Hyrtl.

In the pig each lobule is provided with a separate fibrous capsule of its own, and is, therefore, completely isolated from its neighbours. The portal vessels, artery, and duct run between them, and give off branches to contiguous lobules. In the intervals between the fibrous capsules areolar tissue can frequently be demonstrated.

In all cases, upon a section, the lobule is seen to be bounded externally by branches of the vein, artery, and duct, and in the centre is situated a small branch of the hepatic vein.

In the liver of the human subject, and in that of vertebrate animals generally, with the exceptions above mentioned, the lobules are not separated from each other by any fibrous partition, and there is no areolar tissue or prolongation of Glisson's capsule between them, or in their interior.

The vessels at their entrance into the liver, and as they run for some distance in the larger portal canals, are surrounded with much areolar tissue; but the disposition of this texture about the vessels of the liver is very similar to its arrangement about the vessels distributed to other organs.

The *lobule* itself is composed of a solid capillary network, and of another network composed of a delicate tubular membrane, in which the liver cells are contained.

These networks mutually intertwine with each other.

The capillary network is directly continuous with the smallest branches of the portal vein, distributed upon the circumference of the lobule on the one hand, and with the small intralobular vein arising in its centre upon the other. The vessels of the network converge towards the intralobular vein.

Small branches of the artery open into the venous capillaries of the lobule, near its circumference, and the diameter of these small branches is considerably less than that of the venous capillaries into which they open; the former not more than the 1-4000th of an inch in diameter, the latter about the 1-1600th.

In all cases, the blood, enriched with constituents recently absorbed from the intestine, flows with a gradually increasing rapidity from the circumference of the lobule towards its centre, while the bile flows in a precisely opposite direction.

The cell-containing network is directly continuous with the most minute ducts, which ramify at the circumference of the lobule, and it terminates in the centre by loops, which lie close to the intralobular vein.

The liver-cells lie within a tubular network of basement membrane, which separates them from the walls of the capillaries. In many cases, however, these thin membranes cannot be separated, and are, no doubt, incorporated with each other.

The cells are not attached to the basement membrane of the tube, but lie in its cavity. Among them free oil globules and granular matter are often found. Usually, there is only room for one row of cells, but sometimes two or more lie across the tube. In the embryo, in young animals, and in fishes, there is room for several rows to lie transversely across the tubes of the cell-containing network.

The cells near the margin of the lobule take the most active part in the formation of bile. The secretion passes along the tubes in the slight interstices between the cells and the basement membrane, and coloured fluid can be forced along these same interstices in a direction the opposite to that in which the bile flows during life, and, therefore, at a great disadvantage. The amount of space is in great measure determined by the quantity of blood in the vessels, and it is liable to great alteration.

The secreting tubes of the network are many times wider than the narrow thin-walled ducts with which they are directly continuous.

The smallest ducts are lined with a very delicate layer of epithelium, composed of flattened cells of a circular form, contrasting remarkably with the large secreting cells, which are not arranged in any definite manner within the tubes of the network.

The tubes of the cell-containing network are about the 1-1000th of an inch in diameter, or more, but the finest ducts are not more than 1-3000th, and they are often seen even less.

The smallest ducts in some animals branch very freely, and the branches communicate with each other at intervals. In others they pursue a long course without branching, and in the pig they form an intimate network upon the surface of the lobule. In fatty livers of the pig, however, this ductal network often contains liver cells loaded with oil globules.

As the ducts increase in size they are provided with a fibrous coat, and the epithelium in their interior becomes columnar.

The *interlobular ducts* do not anastomose.

When the fibrous coat reaches a certain degree of thickness, it contains numerous little cavities or *sacculi*, arranged entirely round the tube in the pig and in most animals, but forming two parallel rows, one on either side of the duct, in the human subject.

These little sacculi often communicate with each other in the coats of the duct. The smaller branches of the duct also anastomose frequently either in the coats of the duct or just external to them.

The sacculi appear to serve the purpose of bringing the bile in the thick walled ducts into closer relation with the vessels which surround them, and especially with the branches of the artery which are distributed to their coats.

In the transverse fissure of the human liver and some others, and in the large portal canals, are found some peculiar branches of the duct, *vasa aberrantia*, with numerous sacculi on their walls, which anastomose with each other and form a network.

In the same localities in the human subject, and in the gall bladder, a very peculiar arrangement of the vessels occurs. Both arteries and veins form a network, and each branch of the artery is accompanied with two branches of the vein, one on either side of it.

The vertebrate liver is to be regarded as a true gland, its secreting structure consisting of a *formative portion* taking the form of a network, and of a system of very narrow *efferent ducts* directly continuous with it. The secreting cells lie within a delicate tubular network of basement membrane, through the thin walls of which they draw from the blood the materials of their secretion, and they are thus brought into closer relation with, and are more nearly surrounded by the blood than the cells of any other secreting gland.

ORIGINAL COMMUNICATIONS.

CASE OF TRACHEOTOMY,
PERFORMED SUCCESSFULLY AFTER THE PULSE AND RESPIRATION HAD CEASED.

By CARL BÄDER, M.D.,
Assistant Surgeon to the British Hospital at Renkioi.

On the 28th of April last, at 1.30 p.m., being Orderly Officer of the day, I was hastily called to the barrack-room to see a man 29 years of age, who was said to be in a fit. I found him lying on the floor in a state of unconsciousness. His comrades told me that he had made a bet to eat a large quantity of meat in a very short time, and in the midst of his exertion he fell down and made signs to those about him to thump him on the back, which they did. When I saw him he had been unconscious for about four minutes. I found his skin cyanotic, the superficial veins swollen, and all the muscles spasmodically contracted. No respiratory movement was perceptible. The pulse could scarcely be felt, and the pupils were contracted.

Sending immediately for tracheotomy instruments, in the mean time I opened the mouth, but with great difficulty, by thrusting a ruler between the teeth. Examining the mouth and fauces, I passed my finger as far as the upper edges of the vocal chords, but found nothing to obstruct the passage of air. About two or three minutes were thus lost. Although the mouth was kept open no respiratory movement ensued. The pulse disappeared altogether, while the cyanotic appearance and the muscular spasm increased. The instruments now arrived, and I proceeded to operate, more to satisfy my surgical conscience and to comply with the urgent wish of my colleague Mr. Dix, who was present, than with any hope of saving the patient, as I believed him to be quite dead. We put him on a table, and I made an incision about an inch long, beginning at the cricoid cartilage. I arrived at once at the trachea, and thrust in the trocar at the lower edge of the cartilage, withdrawing it immediately and pushing on the canula until about an inch of it was in the trachea. Several seconds passed. The patient then made one inspiration, and with the expiration a quantity of frothy blood-stained mucus escaped from the canula. The inspirations then became deeper, and followed each other at shorter intervals. I assisted expiration by pressure on the abdomen. After every fourth or fifth expiration a quantity of mucus was thrown up, and after some fifteen inspirations the pulse re-appeared. In about half-an-hour the respiration and pulse became regular, and we removed the patient to a ward. He had an involuntary motion and also vomited, among a quantity of mucus, a piece of meat the size of a man's fist. After this vomiting, the breathing and circulation underwent no change. He was put to bed, quite naked, with the head raised.

At 3 p.m. Mr. Spencer Wells, the Chief Surgeon, saw the patient in consultation, and as he was completely comatose and the surface of the body was still cyanotic, it was determined to take ten ounces of blood from the arm. The pulse, which had been small and very feeble, immediately became fuller and rose to 60. The head and chest were repeatedly sponged

with cold water, and an attendant constantly cleared away the frothy mucus escaping from the canula during the whole night. The man remained quite unconscious, the respiratory movements of the thorax inconsiderable, the pulse 60 and full, and the muscular spasms continued.

April 29.—Mr. Spencer Wells again saw him with me, fifteen hours after the operation. The spasms and cyanosis continued. I had before this been obliged several times to free the passage from air by pressing a small piece of sponge through the canula into the trachea. This was always followed by the ejection of a large quantity of mucus and greater freedom of respiration. The current of air through the tube was strong; pulse 60, regular and full. The mouth was spasmodically closed, but on stopping the canula with the finger the air was felt to escape between the teeth. We therefore determined to remove the canula, and I did so. After withdrawing it, the air escaped by the wound, which formed a hole two lines in diameter. It was left uncovered, and an attendant continually wiped off the mucus which collected. During the day, some wine and an egg were forced into the patient's mouth and he swallowed them, but with violent coughing. The unconsciousness and muscular rigidity continued. The noise from the escaping air, and the state of the patient rendered auscultation impossible. Percussion normal. Discharge from bladder and intestines involuntary.

30th.—Unconsciousness, and spasmodic muscular contraction continue. Eyes still shut, and pupils contracted. Egg and wine given as before.

May 1.—The patient was very restless during the night, rolling from one side to the other. This morning he had an epileptic fit, which lasted half-an hour. After it the rigidity of the muscles returned. The breathing was short and laborious, partly through the mouth. Pulse 90. I could not discover whether the fit had been caused by any momentary obstruction to the passage of air. During the fit the patient, who had remained constantly stiff before, made violent movements with trunk and extremities. Towards evening he became more conscious, opening his eyes, and swallowing freely what was given to him.

2nd.—Has slept a little. Towards morning another epileptic fit lasted a few minutes. The trismus has disappeared; so has the muscular spasm, so far as to be followed by trembling of the extremities whenever he attempts to move them. He answered questions slowly. Towards evening he was able to put out his tongue. The edges of the wound were turgid, but appeared healthy and freely suppurating. The opening was covered by a piece of wet linen. Most of the air escapes by the mouth and nose. The movements of the chest are hardly perceptible. Pulse 90. Constipation.

3rd.—Has passed a quiet night. He answers quicker. Complains of dimness of sight, and pain across the temples. Respiration regular and easy. Pulse 70. Trembling of the muscles prevents him from executing movements with precision. Constipation. Some wine given, also eggs and milk.

4th.—Has slept well. Is able to sit up with some support. Eats and drinks well. The twitching of the muscles prevents him from using his hands. Sight still dim. He is perfectly conscious. Breathing and heart's action normal. In the upper and anterior part of both lungs the breathing is vesicular; in the remainder only a dull humming can be heard. Percussion normal. Constipation. An enema and purging pills having had no effect, a drop of croton oil was given. Wound appears healthy and granulating, a hole of the size of a pin's head remaining in the middle, but hardly any air escaping through it.

5th to 9th.—Dimness of sight and pain in head disappearing. Pronunciation of words improving. The trembling and twitching of the muscles continue, yet the patient is able to eat and sit up without assistance. He sleeps all night, and most part of the day. Pulse regular, 70. Respiration, in the anterior parts of both lungs and in the posterior part of their upper lobes, vesicular; in the remainder indistinct. A little cough without expectoration. Appetite very good. Constipation. Takes soup, eggs, wine, and milk. The wound almost healed. The small hole in the middle remains, but no air escapes through it. Water dressing.

9th to 14th.—The intellect of the patient restored. More certainty in his movements, but they are still very slow. No dimness of sight, or pain in the head. Appetite good. Bowels becoming regular. Wound completely healed. Pulse 90, weak. He coughs more. No expectoration. Rattling in the lower lobes of both lungs. At some places the breathing is bronchial; in the remainder vesicular. No pain.

14th to 19th.—The patient walks about. Head and intestines normal. Movements still very slow. Both lungs normal; weak, vesicular breathing all over. Pulse 70, full. The wound is completely healed, and the patient is in all other respects in quite as good health as before the operation, and has continued so since.

Remarks.—The peculiar features of this case are, in the first place, the recovery after apparent death, the pulse and respiratory efforts having quite ceased; and, secondly, the slow recovery of the intellectual faculties. The patient was completely unconscious for three days after the operation. He had two severe epileptic fits, and after these was in a condition resembling severe delirium tremens. Even after complete recovery a remarkable slowness of movement remained. In a Surgical point of view, it may be remarked that, although the canula was removed fifteen hours after the operation, and the open wound continued to suppurate freely, yet the pus which must have entered the trachea produced no kind of irritation on the respiratory organs.

British Hospital, Renkioi, Dardanelles, June 24, 1856.

JERSEY HOSPITAL REPORTS.

FRACTURE WITH DISPLACEMENT OF THE FIFTH AND SIXTH CERVICAL VERTEBRÆ.

REMOVAL BY OPERATION OF THE FRACTURED PORTIONS OF VERTEBRA—DEATH ON THE ELEVENTH DAY AFTER THE ACCIDENT AND THE FIFTH AFTER THE OPERATION.

By G. M. JONES, Surgeon.

J. G., aged 34, a tall and remarkably muscular man, by trade a carpenter, was brought into the Hospital at 3 p.m. on the 28th February, 1856, in consequence of an accident he met with three-quarters of an hour before his admission. While employed on the deck of his vessel his foot slipped, and he was precipitated into the hold, his head, at the same time, coming in contact with a block; he was taken up in a perfect state of insensibility, and shortly afterwards was seen by Dr. Marett, who accompanied him to the Hospital, where he was immediately attended to. It was evident that he then laboured under the effects of liquor; the breathing was rather stertorous; pulse 38, soft and feeble; pupils natural; excessive priapism. With the exception of a slight abrasion over the right eyebrow, there existed no signs whatever of external injury; the extremities were cold, so that hot water bottles had to be applied to them. When seen at 9 p.m. he had entirely regained consciousness, and complained of pain in the neck, and great uneasiness between the shoulders; also slight pain in the head; had sensation along the arms, but not in the fingers; there was entire paralysis and loss of sensation from the sternum downwards; breathing was consequently performed by the diaphragm alone. Pulse 54; no irregularity in the line of the spinous processes was perceptible; the head was thrown backwards, and the integuments at the back part of the neck presented three or four folds running transversely. A strong cathartic was at once ordered, and ʒxvij. of healthy-looking urine was drawn by means of the catheter. From this date up to the fifth evening after the accident, no melioration took place; on the contrary, the patient slowly, but gradually, became worse; the catheter had to be introduced three and four times in the twenty-four hours, as all power of voiding urine was completely lost; the bowels were only acted on by means of croton oil, assisted by enemata; the pulse varied from 50 to 60; and, notwithstanding the precautions taken, a large sore on each of the nates had already commenced sloughing. On the 2nd March the sufferer was placed under the influence of chloroform, in order that a more minute examination of the spinal column might take place; the result was as unsatisfactory as the first. When seen on the 5th, at 9 a.m., a marked change for the worse had evidently taken place; a great tendency to lethargy, which had never before manifested itself, was apparent; and when roused, the countenance expressed considerable anxiety; the sensation along the arms was more deadened; speech thickened; and the pulse intermitted at every third or fourth beat. Under these most unfavourable circumstances, the

following operation was performed, the patient having first been rendered insensible by means of chloroform :—

An incision, about four inches in length, was first made on each side of the spinous processes of the third and fourth dorsal vertebra, and were then connected together in the form of the letter H, by a transverse one. As much of the muscular structures, together with their integuments, as the nature of the parts would allow, were then reflected upwards and downwards. The muscular mass on each side of the spinous processes, and that covering the vertebral arches, had to be cleared away, in order to expose those parts; this accomplished, the arches of the third and fourth dorsal vertebræ were sawn through close to their pedicles, and their interspinal attachments being loosened, were removed, so that the cord, covered by its membranes, was exposed; but little effusion of blood was found here, and no fracture could be detected; the incisions were, therefore, prolonged upwards, and, on exposing the lamina of the fifth and sixth cervical vertebræ, much ecchymosis was discovered, and the fracture detected. The same proceeding was adopted over these vertebræ as in the first instance, and the cord and its membranes exposed: the arches were fractured across; the membranes were not lacerated, but roughened; and there was much blood effused between them and the vertebral canal. After the removal of the fractured portions, the lips of the wounds were approximated by means of adhesive plaster, and water dressing, etc., applied. The hæmorrhage was very abundant, though not serious, and chiefly of a venous character. The pulse after the operation rose to 80, and no longer intermitted. At 8 p.m. the patient had entirely recovered from the effects of chloroform; merely complained of smarting pain in the neck and back; was perfectly cheerful, and had recovered sensation as low down as the umbilicus. The arms, too, which before the operation could only be drawn upwards, were now raised at pleasure, and could, without inconvenience, be thrown across the chest.

6th.—Slept comfortably during some parts of the night; pulse 70, and regular; sensation as low down as the umbilicus natural; has on several occasions felt the desire to void water, and has asked for the urinal two or three times; the power is, however, still wanting, and the urine has been drawn off. (It may here be stated that, from the time of the accident till the patient's death, this secretion was always sufficient, natural in character, and never once emitted the slightest ammoniacal odour.) On the 7th and 8th the improvement was gradual; and, at 1 a.m. on the 9th, I had some reason to hope that recovery might take place. I found he had slept well for five hours. He expressed himself as refreshed, was very cheerful, desired food, and gave it as his opinion that the catheter would not again have to be employed. Pulse was then 73, soft, and regular. At 5, his bowels were freely acted on from croton-oil pills, taken the preceding evening. His linen was at once changed by the nurses, when almost immediately afterwards coma came on, and he expired at 10 o'clock the same morning. As the patient's relations were anxious to remove the body as soon as possible, the post-mortem examination was of necessity a partial one, and, consequently, by no means as satisfactory as could have been desired. It showed the spinal cord to be entire and unlacerated in its posterior aspect. To the left side, opposite the pedicles, and passing obliquely across, and corresponding to the seat of the fracture through the bodies of the fifth and sixth cervical vertebræ, the cord bore the appearance of injury. Much blood was found in the neighbourhood of the fractured parts, and so complete was the injury and displacement, that the bones were preserved in their natural position almost entirely by the integrity of the anterior common ligament. The roots of the spinal nerves on the left side were in a great measure severed from the chord. There was considerable effusion at the base of the skull, and the muscles and structures on the back were congested.

Remarks.—Although the termination of this case was fatal, the operation must not be regarded as having either accelerated the event, or as failing altogether in procuring the desired result. It is one which presents considerable interest in many points, and holds out encouragement to a bolder line of practice in injuries of the spine than that ordinarily followed.

The first, and certainly the most important point to be considered, is, the justifiableness of operative interference in those cases in which either fracture or displacement, or both, are to be met with in the vertebral column.

When, in common parlance, it is said that a man has broken his back or neck, the words are at once regarded as synonymous with his having met with his death; nor has the experience we may have derived from our own practice since leaving the schools enabled us to arrive at a different conclusion to that impressed on our minds by our able teachers, that fracture of the body, or displacement of any of the spinal processes, is an accident, not only fraught with the greatest danger to life, but is, as a general rule, almost invariably to be regarded as the forerunner of certain death. It is true, that a very few instances are recorded in which patients have lived after the accident for months or even a year or two; but these cases must be regarded as exceptional; and when accidents of this nature come under our observation and treatment, sad reality forces on our minds the painful conviction, that the duration of our patient's life is not to be numbered by years or months, but by days, perhaps by hours only. Taking these undeniable facts into consideration, it appears that we are perfectly justified in operative interference. "To give the patient the advantage of this poor chance," are the words made use of by one of the highest authorities of the day; and this chance, however "poor" it may seem, is to my mind preferable to the "do-nothing" system.

To obtain support as to the propriety of resorting to operative measures in cases of injury of the spine (without which support my own opinion would carry little weight), it is necessary to resort to the writings of men who, in an earlier day, held an undeniably prominent position in their Profession; for if we are satisfied with merely consulting the later writers on Practical Surgery, we shall find but little encouragement given to pursue the course I am anxious to recommend; some do not so much as offer one word on the subject, while others briefly state, "such has been proposed;" and Miller remarks, that "reason and experience have decided against the procedure." We, however, find it stated in Chelius' system of Surgery, edited by South, that the younger Cline was the first to propose and perform this operation in the spring of 1814; and Cooper observes, "that if any good ultimately results from it, Henry Cline has the merit of proposing it." Cline undoubtedly performed unsuccessfully this operation at St. Thomas's, but it is altogether a mistake to suppose that he was the first either to propose or perform it, as the following passage from Dr. J. James's "Medical Dictionary," published upwards of one hundred years ago, evidently shows. These are his words :—"If the spinal marrow is wounded death follows inevitably; though, as it may seem cruel not to attempt the relief of one under these unhappy circumstances, the Surgeon should lay the injured part bare by the knife, and elevate the fragments which press upon the medulla in a proper manner, or, when they are quite loose, extract them. Then let him cleanse the wound thoroughly, and apply balsamic medicines, using the napkin and scapulary. He must continue this till the wound is healed or the patient dies." After Cline's case, Mr. Tyrell on two occasions performed the same operation, but unhappily with the like result. One or two others have followed in their footsteps; and Sir Astley Cooper, in a case which he regarded as fracture with displacement, operated also; but it was found that the spinous process was alone fractured, and not the arch. Here, then, we have sufficient authority for operative interference; and surely the failure of two, three, or even half-a-dozen cases should not suffice to make us abandon an operation which cannot, I imagine, destroy life, while it may, in some instances,—very rare ones, perhaps,—not merely prolong it, but effect a cure. Sir Astley Cooper's fatal case, after tying the aorta, did not prevent Murray and James attempting a like operation, nor will these additional failures deter others from pursuing a similar course if similar cases present themselves.

Mr. Lawrence, in his admirable Treatise on Hernia, makes use of the following words :—"No great inconvenience can arise from cutting upon an enlarged gland, while the patient's life would be endangered by putting off the operation in a case of hernia." This axiom might be extended with advantage to injuries of the spine, without increasing the danger which invariably accompanies them. Most authors agree that local abstraction of blood is often necessary in these cases; therefore the first step in the operation, that is, the incision or incisions made, will answer this purpose; nor are they to be regarded as the certain prelude to further exploration; the Surgeon's judgment has then to decide whether other steps

are justifiable. I have witnessed several post-mortems of patients who have died from injury of the vertebra; and though a very large majority showed such an immense amount of mischief, that human skill, however judiciously directed, could not possibly have availed anything, still, in some rare instances, it appeared to me that science might, perhaps, have removed the evil. "If we could save one life in a hundred by it we should deserve well of mankind," is the written opinion of one well known as an authority; and in this opinion I most cordially concur.

A difficulty presented itself in my case which I do not remember to have seen mentioned by any of my predecessors, arising from the impossibility found by my friends and myself to diagnose the exact nature of the accident, or even the precise spot which was the seat of injury. Dr. Marett's belief that an evident projection of either the third or fourth dorsal vertebra was observable when he first saw the patient, determined me to cut down on both; and the not discovering any injury in these parts led to a much more tedious and searching operation than would have taken place under other circumstances. I merely mention this fact to show that an operation of this kind, if carried on with ordinary precaution, is more dangerous in appearance than in reality; for, notwithstanding its seeming severity, the well-marked beneficial effect it produced formed a most striking contrast to the patient's former condition. The anxious, haggard expression gave place to one of calm, and moans and misgivings to cheerfulness and hope. I am by no means prepared to say that, under any circumstance, recovery might have resulted; still the neglect of two points of the utmost importance lessened the chance of a more favourable termination. One was the length of time allowed to intervene between the accident and the operation, it being an established fact in all cases of injury, that inflammation increases in proportion to the delay, and with it a consequent increase of unfavourable circumstances for operating. The want of suitable appliances to keep the head and spinal column immovable, involves the second neglected point; one, too, which I now feel to be most essentially necessary after similar operations. It will be seen in the history of this case that it was only after the patient had been moved that unfavourable symptoms manifested themselves, producing a state of coma, which shortly afterwards terminated in death. Might not this have been obviated by the application of some well-constructed apparatus?

There is another point, which at first sight may appear of little moment, but which is too interesting to be passed over altogether in silence; that is, the administration of chloroform in this case. My friends were unanimous in their opinion that it ought not to be given, and their arguments certainly carried much weight; it was, however, given at first for a short time only, but afterwards during the whole of this rather protracted operation. Whether it has been administered in any other case of the same nature I am not prepared to say; but, should it not have been so, I am far from proposing this one instance as a rule; it merely shows that, although the intercostal muscles were perfectly paralyzed, and the breathing mainly, if not entirely carried on by the diaphragm, the agent employed to produce anæsthesia, did so with as much advantage as in other operations, in which no doubt exists as to its efficacious and harmless properties.

POST-MORTEM APPEARANCES
OF A CASE IN WHICH
TRACHEOTOMY HAD BEEN PERFORMED THREE YEARS PREVIOUSLY.

By HENRY SMITH, Esq.

In the *Medical Times and Gazette* for July 9, 1853, will be found the particulars of a case in which the operation of tracheotomy was performed for urgent dyspnœa, the result of acute inflammation of the larynx. The patient, who was at that time a fine hearty young man, aged 28, recovered from the effects of the operation, but he was not able to dispense with the tube. This circumstance was, of course, a source of considerable anxiety to himself and his friends, although he was comparatively comfortable, and was enabled to attend to his duties; nevertheless, when he made any unusual exertion, or was exposed to cold, he suffered from difficulty of breathing and irritation; he was, however, enabled to pass away many hours together with the tube corked up, and this circumstance induced me to think that it might be dispensed with.

With a view to obtain sanction for withdrawing the tube, the majority of the most eminent Physicians and Surgeons in London were consulted at various times, and the greater number considered that the patient might be able to breathe through the natural aperture. One distinguished Surgeon, however, with whom I had a consultation on more than one occasion strongly urged, both upon the patient and myself, the impropriety of closing the artificial opening, and this advice, coupled with the nervous timidity of the patient, prevailed; the tube was always retained.

I had lost sight of this patient, professionally speaking, for nearly three years after the operation, when, on the morning of June 30, I was hastily summoned to see him with Dr. Tunaley, who had been called to him a few hours previously, in consequence of an attack of dyspnœa with which he had been somewhat suddenly seized, and which was dependant, not upon any mechanical obstruction to the tube, but upon a general congestion of the lungs, at first unattended with any secretion, but in a short time accompanied with a profuse discharge from the air passages. Both Dr. Tunaley and Dr. Watson, who had seen him some few days before this attack, had diagnosed a diseased condition of the lung on the left side; this was now well marked. The symptoms under which the patient now laboured were most severe—terrible attacks of asphyxia succeeded one another, and he died from exhaustion in forty-eight hours.

In conjunction with Dr. Tunaley I examined the body next day, and the following were the post-mortem appearances presented:—

The epiglottis was free from disease, but erect, and could with difficulty be made to close over the larynx. The entrance into this portion of the tube was so contracted that a small crow quill would hardly pass it, and on laying it open great thickening in the submucous texture of the whole of the interior of the larynx was observed, but there was no disease of the mucous membrane, which was at this point smooth and shining, and presenting no cicatrix of previous ulceration.

The artificial opening was just below the cricoid cartilage, and beyond this the whole of the inner surface of the trachea was not only most intensely inflamed, but at several points it was deeply ulcerated; the inflammation extended to below the bifurcation, and the bronchial tubes were much dilated.

Both lungs were greatly congested, but in addition, the upper and back of the left was rendered almost solid, a great number of tubercles being scattered here and there. On the right side there was less disease, but in the middle lobe a large mass of solid tubercular tissue was observed.

Independent of its intrinsic features of interest, this case is worthy of record, for it was well known to the majority of the more eminent Physicians and Surgeons in London, who were consulted by the patient on various occasions, and some of whom will doubtless recognise it, and will be interested to know the sequel, and the pathological condition of the parts, respecting which there was much discussion during life.

The examination fully reveals the fact, that had this patient survived, the tube must have been worn for life, and yet nearly every one consulted on this point, either recommended that the artificial opening should be closed, or held out strong hopes to the patient that he would some time or another get rid of the tube, and he was only prevented from making the attempt by the opinion of one distinguished Surgeon who strongly insisted upon the danger of such a proceeding. That this advice was correct; the condition of the entrance to the larynx fully demonstrated; still those able men who gave a contrary opinion, had good grounds for doing so, for the patient could remain many hours when tranquil, breathing with the tube stopped up. And as during the last few months of the patient's life it was evident that mischief was being set up in the lungs, it was thought that the continued presence of the tube might have caused this. I must confess, that after having had opportunities of seeing the state of the patient under various conditions, and when he was breathing both with and without the use of the artificial opening, I was strongly inclined to agree with the majority of those who urged the patient to remove the tube. Such a case as this will probably not often be met with; under similar circumstances, however, there would always be a difficulty to decide

whether the patient might or might not safely dispense with the tube, and it appears to me that the particulars of the case may serve to throw some light upon this point.

There is one circumstance connected with the case which must not be omitted. In the Spring of 1855, Dr. Theophilus Thompson saw this patient, and after making a most thorough examination, diagnosed commencing tubercular deposition in the left lung; moreover, he made the following note with reference to the condition of the windpipe, and with which he was kind enough to furnish me.

"Very little air seems to pass the glottis; there is a granular state of fauces; a similar condition in the larynx might explain the reduced passage of air, *except that the sound conveys the idea of simple narrowing, rather than unevenness.*"

The post-mortem appearances show how correct was Dr. Thompson's view.

Caroline-street, Bedford-square.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

SYMPTOMS OF DISEASED ELBOW-JOINT—INTENSE PAIN — OPERATION — ABSCESS IN THE OLECRANON, WITH NECROSED BONE—RECOVERY.

(Under the care of Mr. CURLING.)

Benjamin Smith, aged 33, by trade an engineer, of steady habits, and usually enjoying good health, was admitted on March 29, 1853. The particulars of his affection both in its history and subsequent progress, were carefully recorded by Mr. John Langston, one of Mr. Curling's dressers, of whose notes the following is an abstract:—

March 29.—He applies on account of what looks like disease of the left elbow-joint. There is some swelling around the whole joint, but it is chiefly limited to the posterior part, where the integuments are tense and red. The arm is held rigidly flexed at a right angle, and there is exquisite tenderness about the part, more especially from the olecranon, down the course of the ulna, the slightest touch on which causes him to flinch. He states that for some weeks past he has had most severe and constant pain in this part, and his haggard appearance fully corroborates his account. He states that he was in usual health up to January 15, and had but recently returned from a voyage to the Cape of Good Hope. On the day mentioned, he was attacked by what seemed to be acute rheumatism which confined him to bed for more than a week, and during which several of the joints were much swollen. The general symptoms subsided under treatment, and with them the pain in all the joints, excepting the left elbow, in which it steadily increased. At first there was neither swelling nor redness about this joint, but only an intolerable aching pain. For a week or two before admission, he had attended as an out-patient, under the care of Mr. Ward, and iodine paint had been applied to the part. There were two circumstances in the account of his previous illnesses which were of importance to be borne in mind in connexion with his present affection, viz., that he had on two occasions prior to the one just mentioned suffered from acute rheumatism, and that at the age of 2, he had, in consequence of a severe blow, had an attack of severe inflammation about the same elbow as that now affected. This attack had been sufficiently urgent to necessitate his attendance for some time as an out-patient at a Hospital. Leeches and blisters were applied, and an abscess opened, but eventually he got quite well, and had perfect use of the joint. From the state of the parts and the character of the pain, Mr. Curling inferred that the disease was rather in the bone itself than the joint; as no movements or manipulation could, however, be borne, the diagnosis was only conjectural.

Ordered six leeches, followed by poultice. Low diet.

March 31.—The pain continues as severe as ever, but with some paroxysmal augmentations of severity. It almost entirely prevents sleep. He is to have half-a-grain of the acetate of morphia every night at bed-time.

April 3.—No relief. He has lost appetite, and is rapidly losing flesh and strength. It now appears that, prior to admission, he had of his own accord taken large doses of laudanum for the relief of the pain. Under the influence of chloroform, Mr. Curling this morning made a deep puncture over the olecranon, but no pus was obtained. It was found that the joint had perfect mobility while the patient was unconscious, and no signs of disease within the articulation could be discovered. Two leeches were to be applied every other night, and the dose of morphia increased to a grain.

11th.—The severity of the pain and its nocturnal exacerbations have so far enfeebled the patient that he is now scarcely able to stand without assistance. Nothing whatever has been gained by the treatment. He is to discontinue the leeches, and have a strong opiate lotion applied to the part.

16th.—A blister over the external condyle is to be applied. Morphia in grain doses every six hours.

20th.—It has been determined in consultation to make more free incisions over the ulna.

21st.—This morning Mr. Curling made a free incision along the course of the ulna, from above downwards, for a length of nearly two inches. No pus was obtained. The limb is confined to an angular splint, and the man is to have six ounces of wine a-day. Continue the morphia.

26th.—There has been a slight relief, in some respects, until to-day, when the pain is as severe as ever. The wounds are healing, and do not discharge more pus than their own surfaces supply.

27th.—A general consultation was held on the case to-day. Mr. Luke suggests, and Mr. Curling is inclined to agree with him, that there is probably matter pent up within the bone. Others are of opinion that the intense pain depends upon commencing ulceration of the articular cartilages, and advise a course of mercury. As the patient has been a little better during the last week it is decided to wait.

May 5.—The pain has been very intense ever since the last note. The man describes it as like plunging a number of needles into the part. A course of the iodide is to be tried. ℞ Pot. iodid. gr. iij; dec. sars. ʒi ter die.

12th.—The dose of the iodide is to be increased up to 5 grains.

13th.—Catarrhal symptoms from the iodide have set in with some severity. The dose is to be taken but twice a-day.

14th.—Catarrh more severe. The iodide to be suspended.

25th.—No permanent relief whatever having been obtained by any of the various plans of treatment which have been tried, it has at length been decided to trephine the head of the ulna. The condition of the part is much the same as at the time of admission, excepting that the swelling is more decidedly limited to the back of the joint, and the parts overlying the ulna. The incisions made have wholly healed, excepting one small sinus which leads down to the bone; but from this there is very little discharge indeed, and the surface of the bone is not bare to any extent.

Operation.—The man having been put under the influence of chloroform, an incision two inches long from near the extremity of the ulna downwards, and a second inwards at right angles with the first, were made. The skin having been dissected up, the bone was laid bare. On examining the part to which the sinus led, a very minute opening was discovered, leading into the bone. This was taken as a guide for the application of the trephine, and a small circle having been removed by the latter, the cavity of an abscess containing some necrosed fragments was opened. From this cavity two portions of dead and perfectly loose bone—one about the size of a nut, and the other that of a horse-bean—were removed. This seemed satisfactory; and, as the cavity very nearly opened into the joint above, no prolonged exploration was made. The elbow was wrapped in wet lint, and the arm confined in an angular splint.

26th.—The man has had excessive pain, and, in spite of increased doses of morphia, has had no sleep.

27th.—No rest has been obtained. The elbow is poulticed.

29th.—The severe pain continues. A drachm dose of laudanum is to be taken every four hours, instead of the morphia.

June 2.—The pain is greatly abated; the patient has had good sleep, and is much improved.

7th.—Rapidly improving in every particular, and now able to walk out in the garden. Wound healthy in appearance, and discharging freely.

15th.—The wound is now nearly healed, and the patient is free from pain. The arm is still, however, kept in the flexed position, though it is quite certain that the joint is not diseased.

The man is to leave the Hospital, and go down to the Ramsgate Sea-bathing Infirmary very shortly.

After remaining about five weeks at Ramsgate, during which the wound quite healed, the man was discharged. He had quite regained his health, and was free from pain; the motions of the elbow had, however, not been then perfectly recovered, though there seemed every reason to expect that they shortly would be so. He has not since been seen.

SYMPTOMS OF DISEASED ELBOW-JOINT — REMOVAL OF NECROSED BONE FROM THE OLECRANON—PARTIAL RECOVERY.

(Under the care of Mr. CURLING.)

The following are Mr. Langdale's notes of the ease:—

Emma Simmons was admitted into Sophia Ward, May 31st, 1853. A young woman of short and robust figure, with light hair, blue eyes, and somewhat ruddy complexion, following the occupation of dressmaker. From the county of Norfolk.

The history of the case shows that about ten years ago, while walking in frosty weather, the ground being very icy, she slipped and fell upon the pavement. The greatest part of the injury sustained on this occasion, was borne by the left elbow, and it in a day or two became much swollen and painful in the extreme. Slowly an abscess formed, occupying in its progress two or three months; she then applied to a Surgeon in the neighbourhood, but not getting any advantage from the treatment had recourse to, after two or three months more, she relinquished it. Subsequent to the successive formation and maturation of two or three other abscesses about the part, which last all perfectly healed again, it assumed a more or less chronic condition. But the first established abscess left a permanent fistulous aperture, near—and leading down to—the subcutaneous head of the ulna, through which a puriform discharge constantly escaped to the amount of about an ounce per diem. It was not particularly painful during this stage, aching occasionally, and in damp or wet weather, using the patient's own phrase, it was especially "pricking and shooting." For eight years in a somewhat similar state, the arm was in use, in the performances of the duties of a domestic servant, there being no rigidity, and occasionally the discharge ceased for a period. During the past year, however, it again became hot, painful, and swollen. The aching again became intense, and felt as if it arose deep within the bone—was worse at night—prevented rest, and the arm assumed a rigid flexed position. The patient found most alleviation from the use of cold water, constantly applied. The attendant constitutional symptoms, were loss of appetite, feverishness, &c., and excessive debility.

Nevertheless, by resting the arm upon a cushion and leaving the hand free, with the assistance of the sound right arm and hand, (for a week or two at intervals when the symptoms were less severe) she was able to do needlework. It got still worse, and the patient now entered a Hospital, where she remained for three weeks. She states that the limb was proposed for amputation and the patient herself consented; but, through the non-acquiescence of her friends it was not carried into effect, and she left the Hospital in a less favourable position than before.

In about ten days, having procured a ticket of recommendation, she was taken into the London Hospital. After a careful examination of the part under chloroform, Mr. Curling convinced himself, that in this case, as in the preceding, the disease was limited to the ulna and did not include the joint itself. An operation very similar to that performed in it was accordingly had recourse to, and the trephine having been used, some small fragments of dead bone were removed. The bone was found generally thickened and porous, and it was evident that the disease partook of a strumous character. The patient did remarkably well afterwards. Thenceforward all pain ceased and the thickening gradually subsided. After a while she was sent to the Margate Sea-bathing Infirmary where she regained her health well.

When last seen, shortly after her return from Margate, there was still an open sinus which led down to bone. The joint, however, was evidently quite free from disease, and the arm in a comparatively useful condition. The strumous nature of the disease of the bone was no doubt the explanation of its not taking on a healing action. There was no reason to suspect that any necrosed fragment remained.

SERIES OF CASES ILLUSTRATING THE TREATMENT OF STRICTURE OF URETHRA.

(Continued from page 62.)

GUY'S HOSPITAL.

STRICTURE OF THE URETHRA OF ELEVEN YEARS' DURATION—PERINÆAL SECTION—RECOVERY.

(Under the Care of Mr. HILTON.)

H. R., aged 44 years, a postman, from Wolverhampton, was admitted under Mr. Hilton's care, January 26, 1856.

General health good; aspect healthy; habits now temperate, though formerly dissipated.

Had gonorrhœa smartly for three months twenty-four years ago, but felt no inconvenience or difficulty in micturition till thirteen years after this, when an attack of spasmodic retention occurred, without any very obvious cause. For the relief of this, catheterism was attempted at the Bristol Infirmary, forcibly, but unsuccessfully, and followed by much hæmorrhage, the retention being afterwards relieved by warm bath and medicine. A permanent stricture being found to exist, the patient remained under treatment by dilatation for fifteen weeks, when (a No. 5 instrument being readily passed) he was dismissed relieved. Continued to micturate with tolerable facility till six years since, when the difficulty returned, and he was again under treatment by dilatation for fifteen weeks at Birmingham, (hæmorrhage being the frequent result of the introduction of bougies,) and again left the Hospital, with the urethra sufficiently enlarged to admit a No. 5 bougie. Some six months afterwards he was again the subject of complete retention, was re-admitted in Wolverhampton Infirmary, and for seven weeks was treated by medicine; catheterism, though frequently attempted, being uniformly found impracticable, the patient eventually leaving the Hospital without any instrument having succeeded in reaching the bladder. From this date he continued passing water in a slender stream for some little time, and was then admitted into St. Bartholomew's Hospital, where he remained ten weeks, eventually leaving unrelieved, the catheter again repeatedly failing to reach the bladder. Immediately afterwards he was admitted into St. George's Hospital, where, after nine weeks' treatment, a very slender instrument only could be passed. After leaving the Hospital he was re-admitted, in two months' time, under Mr. Cæsar Hawkins, who, by six months' treatment with caustic bougies, employed twice a-week, and causing great pain, ultimately enlarged the urethra so as to admit No. 9, and the patient left the Hospital greatly relieved. Since this date (viz., two years ago,) he has regularly attended the Wolverhampton Infirmary as out-patient twice a-week, and a bougie has been introduced as often as was found practicable; but during the last three months no instrument could there be made to enter the bladder, and he was advised to submit to external division of the stricture.

On admission he complains of great frequency of micturition, and of constant desire to pass urine; with shooting pain at the end of the penis and along the urethra, of a sense of distressing fulness at hypogastrium, and almost constant uneasiness about the loins. He passes water in a very fine stream, and states, that owing to the constant voluntary effort employed to empty the bladder, the rectum has become so irritable, that the water-closet is the only place where he can micturate with security. Urine is of normal quality and in moderate quantity; there is much thickening and induration in the scrotal portion of the urethra. A medium sized catheter failing to pass the stricture, he was placed in bed and ordered,

Jan. 20.—Pil. coloc. e. cal. No. iij. st., hydr. e. cretâ gr. ij. pulv. Doveri. gr. iij. bis die.

30th.—Suffers from diarrhœa and abdominal tenderness,, (diarrhœa affecting several patients in the Ward at the time without any obvious cause.) Pills omitted. Mist. cretæ 4tis horis.

Feb. 1.—Diarrhœa, with pain and tenderness of abdomen, continue. Appl. lin. terebinth, c. t. opii abdom., et postea catapl. lini.

3rd.—Diarrhœa, etc., quite relieved; feels tolerably well. Hirudines viij. perinæo, et postea catapl. lini. Rep. pil.

11th.—Induration of urethra almost entirely removed. A good-sized instrument can now be passed without difficulty.

Operation.—A grooved staff having been passed through the stricture, an incision was made in the median line of the perinæum, and the latter freely divided. A length of urethra of about two inches was cut through. The bleeding was very inconsiderable, and the surface of urethra, the perinæum not being deep, was easily exposed to view. The mucous membrane of the tract involved in the disease was seen to be covered with minute florid granulations, some of them nearly the size of pins' heads. The extent thus affected differed most noticeably from the healthy urethra above and below.

Mr. Hilton does not strongly advise the operation, but the patient is anxious for its performance. A catheter was afterwards passed into the bladder, and retained twenty-eight hours, a considerable quantity of the urine, nevertheless, passing by the wound.

13th.—A small stream of urine passed to-day by the urethra, apparently in consequence of the wound being temporarily closed by position.

21st.—Patient has progressed without any symptom requiring notice; a small stream of urine to-day, for the first time since last report, passes by urethra, the major part still passing by the wound.

23rd.—Every day the quantity of urine passed per viam naturalem has increased; and now the upper half of wound is quite closed, the remainder looking quite healthy.

26th.—The edges of the wound have assumed a red and swollen appearance, and the patient has lost appetite and is slightly feverish. The quantity of urine passed by the urethra and by the wound is about equal. Pulv. emetic. ℈j. st. M. m. c. m. s. post horas quatuor.

28th.—Emetic and purge both acted briskly; wound again looks healthy, and patient feels pretty well.

March 3.—Wound perfectly healed, and urine, of course, all passes by the urethra.

5th.—A full-sized gum catheter was introduced for the first time since the removal of the one passed at the time of operating, and was retained in the bladder for three days. Since this date a flexible catheter has been occasionally introduced, and the patient has continued well till his discharge.

18th.—From the day of the operation, the patient asserts that he has felt a general relief from all his stricture symptoms, such as he had never experienced for thirteen years past. Since the date of operation he has been entirely free from his irritation of the bladder, his constant desire to micturate, the darting urethral pains, the rectal straining, and the lumbar and hypogastric uneasiness.

Up to the present time there has not appeared to be any tendency to recontraction on the part of the stricture. The man has returned to his work and is in the enjoyment of good health, being much delighted with the result of the operation. He still uses a No. 7 elastic instrument once a-week.

THE PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

CARTILAGINOUS STRICTURE OF GREAT LENGTH.—RAPID RECOVERY UNDER DILATATION, LEECHES, etc.

(Under the care of Mr. LANGSTON PARKER.)

George Humpage, aged 40, affected with stricture of the urethra, admitted into the Queen's Hospital, October 25, under the care of Mr. Langston Parker. On examination the bladder was found greatly distended; he complained of much pain and constant desire to pass urine which, however, he could only accomplish drop by drop. The urine was clear, and did not deposit; he could not sleep at night, and his countenance was haggard, and showed signs of acute and long continued suffering. His bowels were costive and his appetite gone. It appeared that he had experienced difficulty in passing his water during the last two years, that he had neglected it, and in consequence he had gradually become unable to pass the slightest stream, it continually running from him. He had frequently suffered from gonorrhœa. On a bougie being introduced, the whole of the urethra was found to be in a hardened, semi-cartilaginous state, and the smallest instrument could not be passed more than three inches and a-half. As the patient complained bitterly, it became a question what treatment to adopt; but as a sufficient quantity of water passed during the twenty-four hours, Mr. Parker ordered the bougie introduced daily, and suffered to remain a short time, while he had 5 grains of soap and opium pill at bedtime.

The proceeding was continued until November 5, an occasional dose of castor-oil being required to regulate the bowels; the bougie could now be passed much further, but was stopped by an impediment harder than any of those overcome. A moderate sized silver catheter (No. 8,) was now substituted, and in two or three days it could be passed readily as far as the membranous portion. He was now put in a warm bath daily, and on two or three occasions had leeches applied to the perinæum, the catheter being used after each bath; on November 20, the catheter was passed into the bladder, and some quantity of turbid urine taken away. The instrument was allowed to remain, and secured by tapes in the usual manner. The patient was kept in bed four days, during which time suppuration was established; the catheter was then removed, and in the course of a few days the patient found he could make water with great facility, and in as full a stream as he ever could. He was now free from pain, and at his discharge he was found increased in weight, and his countenance showed none of the haggard appearance it did on admission, and the catheter could be passed with perfect ease. He was advised to pass the bougie occasionally for some months.

THE LIVERPOOL ROYAL INFIRMARY.

PUNCTURED WOUND OF THE ABDOMEN AND CHEST ENTERING THE LUNG—PROFUSE HÆMORRHAGE—RECOVERY.

(Under the care of Mr. LONG.)

Charles Wyse, aged 23, was admitted into the Liverpool Royal Infirmary during the night of the 3rd of July, 1855, having been stabbed with a clasp knife. I saw him on the following morning. I found a wound on the right side, commencing below the margin of the cartilage of the ninth rib, and extending obliquely upwards and backwards. It had been stitched; the integuments were distended with blood; there was bloody expectoration, dulness on percussion, and absence of respiration as high as the third rib; there was inability to lie on the right side, and great restlessness. It was obvious that hæmorrhage had taken place into the thorax, and was still going on. The sutures were removed, some clots of blood escaped, and afforded relief; considerable hæmorrhage now took place externally. The external wound was enlarged, it was then found that the cartilage of the ninth rib at its junction with the eighth had been cut through; it was everted, the bleeding orifice of the vessel seen and secured; by a sudden cough he expelled a large quantity of coagulated blood through the wound; a piece of lint moistened with warm water was laid over the wound; on the following day a large clot protruded through the wound, having at first sight much the appearance of a portion of lung. As it accurately blocked up the wound, and excluded the air from the cavity of the chest, it was not interfered with, but gradually came away. For two or three days there was a profuse discharge of serum tinged with blood; then of colourless serum; the quantity was enormous, washing through many folds of linen, which had to be renewed frequently during the day and night. The wound closed, and recovery was complete, with the exception of dulness on percussion, and absence of respiration to a short extent above the seat of the injury.

This wound, commencing below the cartilage of the ninth rib, and completely dividing it, must have divided also the diaphragm, and entered the abdomen.

COMPLETE SEPARATION OF THE RINGS OF THE TRACHEA FROM INJURY.—TRACHEOTOMY.—RECOVERY.

(Under the care of Mr. LONG.)

T. B., aged 20, a railway labourer, while connecting two railway carriages, was caught around the neck by the cou-

pling chain. He was brought to the Liverpool Royal Infirmary immediately, on the 24th of October, 1855, and placed under my care. There was slight abrasion of the skin of the neck, slight tumefaction, and slight emphysema; he spoke in a subdued tone of voice; there was also slight paralysis of the arms. He was able to walk; when I saw him he was sitting in a chair. I examined the trachea as carefully as I thought justifiable, and as much as the state of the parts permitted, but detected no separation or laceration; but concluded, from the nature of the accident and from the emphysema, that such must be the case. In the evening of the same day some difficulty in breathing took place, with considerable distension and pain in the neck. The House-Surgeon, Mr. Halford, applied six leeches on each side, and on the following day, the 25th, the same number was again applied. On the 27th I found him much better. When I visited him, he was sitting up in bed, and taking some broth; his breathing, however, had a croupy character, and his voice was raucous. Early in the morning of the 28th, I was sent for, the message being that the man was dying. He was, it appears, in the act of taking a dose of house medicine when symptoms of impending suffocation came on. When I arrived at the Infirmary, I found him in the same state as when I saw him on the 27th. At noon the same thing again occurred, but, on my arrival, I found him as I left him in the morning. I ordered him a full dose of jalap and calomel, his bowels being confined. In the evening another message arrived. I found the man sitting on the night-chair, his bowels more freely purged; he breathed better, spoke more clearly, and expressed himself as feeling better than he had done since the accident. His expression was, "I am all right now." At 11 p.m. he was perfectly quiet, and slept tranquilly. At 8 a.m. of the 29th I was again suddenly summoned. I found him lying on his back, his head thrown backwards, his face livid, eyes turned upwards, lower jaw depressed, in fact *in articulo mortis*. I immediately made an incision in the median line of the neck, over the site of the trachea; introduced my finger into the wound, among a mass of clotted blood, but could find no trachea; on turning out the blood I perceived a bubble or two of air escaping from the lower part of the wound to the left side, just above the sternum. This was found to proceed from the lower end of the trachea, which was pushed aside, possibly by the effused blood. The trachea was drawn into the median line. I then passed my finger upwards into the larynx, the lower end of which was at least two inches distant from the separated trachea below. All connexion between the two was completely gone. Air began to enter more and more freely into the trachea, which, however, was clogged up with blood. Attempts were made to free it by position and a syringe, but these failing, Mr. Halford applied his mouth, and sucked up a considerable quantity of blood. This proceeding was repeated several times during the day by my dresser, Mr. Roberts, when dyspnœa became urgent, and each time the man was relieved of a portion of blood. A tube was introduced into the open end of the trachea, which was on a level with the upper border of the sternum, and the man's head was inclined downwards, so as to diminish the extent of the gap as much as possible. On November 3 the trachea tube was removed, and a double piece of gauze placed over the opening. On the 14th, having incautiously exposed himself to a cold wind in the yard, he was seized with acute bronchitis of both lungs; the amount of stringy mucus expectorated was enormous; it all came through the opening, and had to be constantly dragged out, so that he required incessant watching. This attack gradually subsided, and on December 1 the wound was quite closed. On the 21st he went home; after this he had another attack of bronchitis. He called upon me on April 18, and again on the 26th of last month—June. I examined him carefully, and noted "He is strong and his complexion florid; a depression exists in the throat just above the sternum, capable of holding a walnut; this is increased doubly in depth and width during each inspiration, showing the use of the deep cervical fascia, in reference to the trachea, when the parts are in their natural state. A fragment of trachea can be felt attached to the lower part of the larynx; below this nothing is felt like tracheal rings, but merely a fibrous tissue; his voice is hoarse, like that of a person suffering from the commencement of a cold, and when he breathes quickly and deeply the sound produced is that of air passing through a narrow tube. I presume, therefore, that a fibrous tube has been developed in the space existing between the upper and lower ends of the divided trachea.

I suspect in this case the following was the course of events:—The trachea was in the first instance partially torn across; bleeding took place gradually, the effused blood coagulating around the lacerated part (he never expectorated any blood); this arrested the emphysema, and preserved the continuity of the tube; that, owing partly to the elasticity of the trachea, and partly to the movements of the neck, the separation became greater, coagulated blood still blocking up the aperture; that the effort to take medicine caused the displacement to become greater still, and the separation of the two ends to be complete, the coagulated blood still forming a continuous channel for the air; that a slight lateral displacement occurred twice after this, the lower end of the trachea each time regaining its natural position; that on the morning of the 28th the displacement was such that the trachea could not regain its former position; and the coagulated blood, instead of forming a channel for the air, blocked up the end of the tube, and thus would, unless immediate assistance had been given, have destroyed life.

Medical Times & Gazette.

SATURDAY, JULY 26.

THE CASE OF WILLIAM DOVE.

While the murder of Cook by strychnia still remains deeply impressed upon the public mind, a second case of poisoning by the same powerful agent has been tried at York, but with a very different result from that which ensued at Palmer's trial. In the first memorable case, the ingenuity of Chemists, and of Medical Practitioners, was severely taxed in bringing to light the fact that the death of the murdered man was really caused by strychnia; but in the case just ended at York, the fact of poisoning by strychnia was at once conceded, and the point to be determined by the jury was the sanity or insanity of the murderer.

We shall here offer a few observations upon some features o similarity, and some of contrast, which characterise these two remarkable trials. The similarity of the symptoms in the cases of Cook and Mrs. Dove must be apparent to all. Withou referring to the previous attempts at poisoning made in both instances, we may remark that the fatal doses were followed in each by symptoms almost precisely similar. William Palmer administers some pills to his friend Cook, and soon afterwards Cook is seized with tetanoid convulsions, his body becomes arched, and he dies in frightful torment: William Dove mixes some medicine in a glass, gives it to his wife, and the same symptoms supervene—the tetanoid convulsions, the arching of the back, the final agony of death. William Palmer and William Dove are both proved to have had strychnia in their possession; they both administered something to their victims; both the deaths were those which might be expected to result from strychnia poisoning. But in Cook's body no strychnia was found after death; in Mrs. Dove's body the poison was easily discovered. It must be remembered, however, that in Cook's case a *minimum* dose of the poison had probably been administered; that the stomach of the deceased had been cut open, and its contents allowed to escape; and that strychnia was sought for only as one poison among many others: in Mrs. Dove's case, a large quantity of strychnia had certainly been given; the stomach and its contents were carefully preserved and examined; and strychnia was expressly sought for as the poisonous agent.

These cases, also, seem to show that the spirit of imitation has a large share in the commission of certain criminal

acts. The horrible accounts of the Rugeley tragedies reveal the fact that strychnia is a most fatal poison — the accidental circumstance that, in Cook's case, no traces of it were discovered, leads to the erroneous inference that it is a poison incapable of detection; and forthwith William Dove procures a portion of this deadly drug, and poisons his wife. But we are not called upon to consider the case of William Dove in its chemical or physiological aspects, as the evidence is too conclusive to admit of the slightest doubt; we are invited to examine the psychological features which have very recently been developed, and to inquire whether the poisoner in the Leeds murder was, or was not, accountable for his actions.

We have examined with great attention the arguments and the evidence adduced for the defence, to prove that William Dove was of unsound mind, and was therefore irresponsible; but we are compelled to admit, that we have not yet been convinced that the plea of insanity has been adequately sustained. It is indeed proved abundantly that the prisoner was a cruel, mischievous, idle, and wicked person; that he was inveterately addicted to drink; that he possessed no definite notions on the subject of religion; that he was fond of self-indulgence; that he followed no useful employment. He had tortured cats and cows, he had threatened to shoot his father; he had put a loaded pistol into his own mouth, and had committed many other cruel and foolish acts, for some of which he might, and ought, to have been severely punished; but, unless crime and insanity are convertible terms, such acts do not necessarily indicate insanity. He also entertained a belief in spirits, and goblins, and wizards, and other supernatural agencies; but there are too many weak persons who entertain similar delusions to allow us to admit that this is a decided proof of unsoundness of mind.

Again, the murderous act which he committed was not performed in a moment of sudden frenzy, or of uncontrollable impulse; but it was contrived and executed with all the cunning and tact which characterize the deeds of the cold-blooded assassin. Nor was motive wanting for the murder; for he was a bad and brutal husband, and had often expressed his intention of destroying his wife and marrying some one else. His conduct, too, after her death, was certainly not that of a madman, but of one who had committed a crime, and was anxious to conceal it. He is very much averse to a post-mortem examination of his wife's body, as might have been expected, although he had entertained the hope that strychnia was incapable of detection. He does not admit that he administered the poison to his wife, as a lunatic would probably have admitted; he does not offer any explanation of accidental administration, like a sane, innocent man, who finds his wife suddenly carried off with the symptoms of poisoning. He adopts the silent system, which succeeded so well in Palmer's case, and gives no clue, in any expressions which he lets fall, to the unraveling of the dreadful history.

The psychological evidence brought forward on the part of the prisoner was, in our minds, not satisfactory; and we cannot but agree with the Judge who tried the case, that Medical evidence which deposed to facts was far more valuable than that which consisted merely of the expression of opinion. Examined by this test, the evidence of Dr. Caleb Williams, the highly-esteemed Physician to the Retreat at York, could not be said to serve the prisoner; for although he had carefully examined Dove since his committal to prison, he deposed to no *facts* indicating his insanity. He merely gave it as his opinion that the various acts of cruelty to which we have alluded indicated an unsound state of mind; but when cross-examined on this point, he evidently began to regard crime and insanity as synonymous terms; at least such is the conclusion which we have been constrained to form by the perusal of his evidence.

We would beg particularly to call the attention of our readers to our abstract of the Trial printed in another part of the Journal, where we have brought together, in a condensed form, all the important evidence, and the reasoning of the Judge and the Counsel upon the question of the prisoner's sanity or insanity.

On the whole, then, we consider that the verdict of Guilty is one that is fully borne out by the evidence; that the recommendation to mercy is founded on a mistaken notion on the part of the jury as to the limits between insanity and crime; and we must express our hope, that the miserable wretch, Dove, if he is not hanged, will be at least sent to expiate his guilt upon some distant shore, and be doomed to hard bodily labour for the rest of his life. Sympathy would be thrown away on such a criminal.

THE WEEK.

The elections at King's College Hospital have terminated in the choice of Dr. Charles Murchison and Dr. Conway Evans as Assistant-Physicians, and Messrs. Wood and Hulke as Assistant-Surgeons. We understand that considerable disappointment has been expressed by some of the old students of King's College Hospital at the non-election of Mr. Henry Smith, who was one of the candidates for the post of Assistant-Surgeon. This gentleman is well known as a most zealous cultivator of the art and science of Surgery, and has filled the post of House-Surgeon to King's College Hospital. Without the least disparagement to the gentlemen who have been elected to the vacant posts, we cannot but think that Mr. Henry Smith's claims have been somewhat unfairly passed over. We learn that the appointments of Assistant-Physicians and Assistant-Surgeons at this Hospital are only for a limited period, and that they confer no absolute claim to the senior appointments, when the latter may become vacant.

We beg to call attention to a Report (which is published this day in our columns) upon the Medical Department of the Army, in which it is intended to introduce some beneficial changes. We are glad to find a recommendation that the principle of competition or of special examination is to be recognized, as far as possible, in future appointments of Medical Officers to the Army. Another beneficial movement is the recommendation to appoint properly trained persons as dispensers and compounders of medicine as members of the Medical establishment of every regiment. The duties of Pharmaceutists are at present performed by persons who have received no previous education whatever to qualify them for the task.

A case involving some features of psychological interest has lately been tried at Winchester. A person named Macauley, possessing some little property, appears to have displayed, to say the least, very great eccentricities of character; he was very filthy in his habits, allowed his beard and his nails to grow, exhibited a great aversion to washing himself, and entertained feelings of hatred against his nearest relatives, and, as it would appear, without any cause. He was, moreover afflicted with paralysis, of which he eventually died. There was an undoubted taint of insanity in his family, and two of his brothers had been inmates of lunatic asylums. His mother and sister and a lunatic brother were all in bad circumstances, yet he left them nothing by his will, but directed the whole of his property to be divided among the members of a family who appear to have lived with him in the capacity of servants, and who acquired a great influence over him. He was a very voluminous writer, and was continually quarrelling with his pens; and he was also a great reader. A considerable number of letters were read which indicated no

unsoundness of mind; but there were a few which were quite inexplicable on the supposition of his sanity. The summing-up of the Judge appeared to be in favour of the validity of the will, and in point of strict law we believe the view taken by his Lordship to be correct; but, as we think should always be the case, where the circumstances on each side are at all on the balance, the Jury took the side of common sense and justice, and ignored the document, thus giving the property to the relatives of the deceased. It is an axiom in law, that if a person is sufficiently sane to know what he is doing *at the time* of making a will, the document is a valid one, notwithstanding the existence of delusions before and afterwards, and notwithstanding the obviously cruel tendency of some wills towards surviving relatives. We are not disposed to contest this view on psychological grounds; but we are happy to find that juries are often inclined to pronounce against wills in which relatives are unjustly injured, and sycophantic menials and other unworthy parasites are unjustly enriched.

The authorities of St. Pancras have again been in trouble, and a Coroner's Jury has pronounced a censure upon the general management of the Workhouse, after an investigation concerning the death of one of the inmates of this unfortunate establishment. The deceased, it appears, was labouring under disease of the heart, and being unable to digest the gruel and the beef allowed to him, his diet was ordered by the Resident Surgeon to be changed to mutton and tea, but it is not shown that this order was carried into effect. A post-mortem examination revealed old-standing disease of the heart, but the verdict of natural death was accompanied by a strong opinion on the part of the jury, as to the defective state of the Medical arrangements. It was proved, among other act of petty tyranny on the part of the Guardians, that the allowance of beer formerly granted to the paupers had been suddenly stopped, and this circumstance had exasperated them against the Surgeon, who was supposed to be the cause of the change. The Coroner, in his summing up, observed,—"That a destitute person in the position in which the deceased was placed, was entitled by law to nature's sustenance, equal in quality to that which could be obtained by the first nobleman of the land."

A disciple of Dr. Coffin has been tried at Lincoln, and sentenced to three months' imprisonment, for manslaughter by the use of *Lobelia inflata*. The victim in this case was the wife of a labouring man, and was said to be suffering from fever, but was in a convalescent state; when the quack doctor introduced himself to her, he pronounced that she had "abcesses in her inside," and that he would cure her. He accordingly administered the panacea, which was taken so regularly and so effectually, that, after great suffering and delirium, the poor woman died. The cases of poisoning by lobelia inflata have been so numerous of late years, that this drug ought certainly to be classed among the prohibited articles, if any legislation should take place upon the sale of poisons. In the case to which we now allude, the punishment of imprisonment for three months appears a very light one; but it has been so frequently the case that prisoners charged with poisoning by lobelia inflata have been triumphantly acquitted (sometimes under the direction of the presiding judge), that the mere fact of a conviction is a subject for congratulation.

The Astley Cooper Prize for 1856, of £300, has been awarded, by the Physicians and Surgeons of Guy's Hospital, to Dr. B. W. Richardson, 12, Hinde-street, Manchester-square, for his essay "On the Cause of the Coagulation of the Blood."

REVIEWS.

The Surgeon's Vade Mecum, a Manual of Modern Surgery. By Robert Druitt, Licentiate of the Royal College of Physicians, London, etc. Seventh Edition, rewritten, much Improved, and Illustrated by 300 highly finished Wood Engravings. London. 1856.

The fact that a Manual of Modern Surgery is issued under the authorship of a Licentiate of the Royal College of Physicians, is, we believe, accounted for by the circumstance that the book before us was written by its author at a very early age, when fresh from the Hospitals and schools, and before his particular Professional line was chalked out. However, a good book need never be unacceptable, whoever may be the author; and the rapidity with which the book before us is bought by the reading portion of the Medical fraternity is, we suppose, a fair proof that it is a good book. It is little more than two years since the sixth Edition passed through the critical department of the *Medical Times*, and now we have a seventh, which, for excellence of print and paper, abundance of illustration, and general completeness, appears to be considerably in advance of the sixth.

The leading characters in Dr. Druitt's work are great clearness of language, great power of saying much in few words, and great fairness; for in points in which his own personal observation or experience is not appealed to, we find him representing the views of various schools and persons with the greatest impartiality. For example, this seventh edition contains a large number of drawings of surgical instruments, including those for the relief of stricture, and yet we suppose that it would be difficult for the most irascible of specialists to complain of any unfairness in the examples selected. The sections on tumours appear very carefully done, and are illustrated with many microscopical drawings of structure. We observe that Dr. Druitt insists upon it that "*all tumours are constitutional* and not merely local maladies," and he enters into rather full details on the topic of epithelial cancer, or epithelioma, as we believe the Germans prefer to call it. We may subjoin the following extract:—

"Melanosis is a term which ought to be banished, inasmuch as it refers to a mere accident or complication of tumours, viz., the presence in them of considerable quantities of black pigment." "Surgically considered the chief interest of pigmentary deposits is derived from the fact that they are often associated with soft cancer, and it is this combination that is generally signified when the term 'melanosis' is used." "Horses, and especially aged greys, are particularly liable to black tumours, which consist of fibrous tissue abundantly impregnated with pigment. These are quite innocent, and although they may pervade the entire body, and may occasionally soften and suppurate, they have no alliance with cancer, and do not, except accidentally, impair the general health."

Dr. Druitt exhibits a microscopic drawing of a melanotic tumour, taken from a bay pony, belonging to Professor Simmonds, of the Royal Veterinary College. It is a common fibrous tumour, impregnated with pigment, and not cancerous. We certainly think that the above extract simplifies the subject of melanosis in a satisfactory manner, and shows why, if it be a malignant disease, it is less certainly fatal than any other of its class.

There is a pretty full account of the operation of excision of the knee-joint, that latest *chef d'œuvre* of Surgeons; in fact the whole operative department is greatly enlarged and improved. The account of chloroform, and of congelation (which Dr. Druitt regards with favour,) is singularly good, and we should be glad to quote from it if our space permitted. There is also a page devoted to the claims of mesmerism as an anæsthetic agent; which, though an unnecessary part of a Surgical treatise, is yet satisfactory, for the crushing and logical refutation of that kind of remedy, which is given almost in the words of Dr. Esdaile, one of its great promoters. The chapter on the eye appears to have been revised by Mr. Haynes Walton, and also that on the arteries. We must only add, that the other parts of the work appear to have been carefully revised, and every novelty fully noticed, and that a really valuable collection of formulæ concludes it. There are many passages throughout, especially those on the treatment of scrofula, which show the writer to be as able a practitioner as he is undoubtedly erudite.

Automatic Mechanism, as applied in the Construction of Artificial Limbs in cases of Amputation. By Frederick Gray, Esq., Constructor of the Anglesey Artificial Limb, and Operator to the late Marquess; with upwards of 100 Illustrative Cases and Correspondence. Dedicated to Sir Benjamin C. Brodie, Bart. London. 1855.

Mr. Gray tells us that he takes immense pains to make the socket of an artificial limb fit the stump, instead of thrusting the stump into any sort of cavity, and then leaving it to fit as it best may. His process appears to be, that he first makes an accurate model of the stump, and casts a socket to match; and that next he carves out a perfect fac simile of the latter in willow wood, by means of a "pointing" instrument, which is employed by sculptors, and, we believe, also by dentists, for rendering any one surface a copy of any other. Mr. Gray writes with a kind of allowable enthusiasm for his art, and though we confess that the book gives very little information to the general reader on the subject on which it professes to treat, yet we suppose that the author's friends and patrons will be pleased to see in print the large number of testimonials and letters commendatory which it makes known.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON DISLOCATION OF THE UPPER END OF THE RADIUS.

By Dr. BATCHELDER.

The head of this bone is luxated forwards in children, in consequence of a gradual elongation of the ligaments. "When a child, much led or often lifted by the hand or wrist, and carried along with the arm extended, or pitches forward, the arm is rotated in one direction, while the hand is held fast or turned in an opposite direction by the person having hold of it. This practice stretches, weakens, and elongates the ligaments of the joints, and impairs its motions; and on examination the bone is found partially or completely luxated." The accident may be induced suddenly in a somewhat similar manner. The child is lifted by the hand with a jerk and carried along; the elbow some time after inflaming and its motions becoming impaired. This is often mistaken for a sprain until after the inflammation has subsided, when the real nature of the injury is discovered—too late for remedy. The movements of the part are, however, much less impaired than might have been expected.

In the adult, the dislocation forwards is always the result of violence, and is more disastrous in its consequences, but is of such rare occurrence that experienced Surgeons have denied its existence. Dr. Batchelder declares, however, that he has met with a "number" of these cases, and he believes that they must be of more frequency in country than in town practice. He describes the procedure he has found successful for the reduction, even in cases of some weeks' standing, and which he learned of Dr. Goodhue. "Suppose the left elbow to be the seat of injury—the Surgeon should take the hand of that arm in his right hand (palm to back,) and grasp the elbow with the other, with the thumb placed on the inside, and a little above the head of the radius. The forearm should now be forcibly extended, and the hand no less forcibly supinated, and the head of the radius pushed downwards and outwards by the thumb placed on it for that purpose. As soon as it has descended to a level with the articulating surface of the external condyle, which it readily does, the hand should be carried rapidly and forcibly upwards, crossing the arm in a direction external to the acromion process; the head of the bone, being at the same time pushed vigorously outwards, slips into its place." After the reduction, in order to prevent relapse, which is apt to occur, the arm is to be kept fixed; and, for complete security, it should be placed in a rectangular splint, care being taken to impart passive motion to the joint after a fortnight; only very limited spontaneous movement being allowed before the end of the month. When the head is dislocated backwards the procedure must be reversed—the Surgeon taking the hand palm to palm, pronating as much as possible, bringing the forearm to an acute angle with the arm, and carrying the patient's hand inwards across the upper arm in a direction towards the middle of the clavicle. The thumb of the Surgeon's other hand should then be placed just above, and on the outer or back side of the head of the radius, causing it to advance downwards and forwards to a level with the articular surface of the outer condyle of the humerus. The limb is next to be rapidly and forcibly straightened, and the hand supinated, when the head of the bone, under firm pressure, returns to its place.

According to the author's experience, the hand in dislocation forwards is just the reverse to the pronated state described by A. Cooper:—"It is natural enough to suppose that the hand would follow the movement of the radius, and be pronated, when that bone was luxated forwards and inwards, unless we recollect that by this change in the direction of the bone the supinators, particularly the *s. brevis*, would be put on the stretch, which would cause supination of the hands. So in dislocation backwards, the *pronator radii teres* and *biceps flexor longus*, and, perhaps, the *pronator quadratus*, would likewise be put on the stretch, and bring the hand into pronation. When dislocation forwards has happened, neither pronation nor supination can be fully performed by the patient, or effected by another; but when it has been caused by great violence, or when much force has been applied in efforts at reduction, and the parts about the seat of injury have been consequently much torn and broken up, the hand may become considerably more pronated than it would otherwise have been, or be the more easily made to assume that position. But for these circumstances, supination is the necessary result of this form of dislocation, and it is to be presumed that they operated with full force in the case related by Sir Astley Cooper, and also in that recently given by M. Tagert. If I am not much mistaken, this is the position represented by the plate in Sir Astley Cooper's work on Dislocations and Fractures."—*New York Journal of Medicine*, Vol. XVI. pp. 333—339.

ON ARTIFICIAL MINERAL WATERS.

At a recent discussion at the newly-formed Paris Hydrological Society, M. Durand Fardel observed that he feared too great importance is attached to the employment of artificial mineral waters, instead of those derived from the natural sources. Most of those so designated do not deserve the title at all, consisting in general but in a solution of a single principle, which predominates in the mineral water imitated, but only itself constitutes a small portion of it. Thus, what is called artificial Vichy water is but a solution of bicarbonate of soda. There are, however, artificial practices which may have their value, as *e.g.* the introduction of carbonic acid gas into Vichy or other mineral waters, to replace that which has become spontaneously disengaged. M. Chevallier agreed in this opinion; for, whatever the perfection of the process employed, we can never artificially represent a natural mineral water. It is even, at present, impossible to redissolve the principles we have extracted from a mineral water by analysis, and make of it a composition identical to that produced by nature. Artificial mineral waters are then an imitation of conditions perfectly unknown, and should only be regarded as very imperfect medicinal substances. M. Patissier observed that the prolonged employment of artificial Seltzer water often produces an irritation of the stomach, which is, on the contrary, calmed by the natural waters.—*L'Union Médicale*, 1856. No. I.

PROVINCIAL CORRESPONDENCE.

IRELAND.

[From our Dublin Correspondent.]

Dublin, July 21, 1856.

Much interest was excited in the North of Ireland during the past week by the trial by criminal indictment, at the instance of the Crown, of Dr. Patrick Connor, of Newry, for infringing the Apothecaries' Act, by "keeping open shop, and acting in the art and mystery of an Apothecary." The circumstance which led to this prosecution was the unfortunate accident, already known to your readers, by which the late lamented Captain Kent lost his life. The transgression of the law was fully proved; but as it appeared that Dr. Connor had many years ago lodged his papers at the Apothecaries' Hall, and

paid the examination fee, and that his qualifications had been approved as entitling him to present himself for examination, the presiding Judge, Mr. Justice Perrin, suggested that the prosecution should be withdrawn on the traverser undertaking to submit to examination within three months, and entering into an engagement never again to take an unqualified apprentice or assistant. The Judge's suggestion was, after some discussion, agreed to by the Crown counsel—a course in which some of the members of the Court of Examiners of the Hall, including the Governor and Secretary, who had been summoned as witnesses, expressed their concurrence.

This mode of proceeding by criminal indictment, which has been successfully adopted in England, had once before been tried by the Apothecaries' Company of Dublin, but failed for want of a precedent, although the Company afterwards succeeded in a civil action against the same individual. Such a precedent is, however, now supplied by the result of the above trial.

In a former communication I stated my wish to bring under your notice the fatal case of small-pox, the result of inoculation with variolous matter, which occurred some time since in the neighbourhood of Ballinasloe. It is lamentable to see the obstinacy with which the lower classes adhere to this most baneful practice, and their blindness in allowing themselves to be made the dupes, and their children the victims, of the ignorant and unprincipled individuals who infest the country in pursuit of their unholy traffic. It is also humiliating to observe how little effect legislative enactment has in checking this monstrous evil, chiefly in consequence of the great unwillingness of the people to give evidence against the delinquents. An eminent practitioner writes, "Small-pox inoculations have been extensively practised in this town and neighbourhood. Though we had sufficient moral evidence of this, we were not able to prove its legality in any case previously to those referred to in the newspapers. The culprit in the late instance had, on pleading guilty of one offence, been sentenced to a fortnight's imprisonment, and, subsequently to the sentence, information was received of a case which had terminated fatally. The resident magistrate, with laudable determination, insisted on a post-mortem examination being held, and the coroner's inquest, which had been summoned, was adjourned until the autopsy should be performed. The result was a verdict of manslaughter. The consequences of this practice of inoculation have been very disastrous. Variola rages in this town with great violence, in some instances attacking the upper classes of society, and I trust that something useful may result from the verdict which has been obtained." The evil described in the foregoing communication has evidently attained a fearful height, and loudly calls for effective interference. It appears to me that the statute bearing on the point is far too lenient; I can find in force in Ireland on the subject only the 3rd and 4th Victoria c. 29, § 8, which provides that persons inoculating, or otherwise producing small-pox, shall be liable to be proceeded against at petty sessions, and, on summary conviction before one or two magistrates, may be imprisoned for a period not exceeding one month.

The following were the Examiners chosen on the 14th instant in the Queen's University in Ireland, for the year 1856-7, in the subjects connected with the Medical Department:—Chemistry, Professor Blyth, of Queen's College, Cork; Anatomy, etc., Professor Corbett, Cork; Zoology and Botany, Professor Melville, Galway; Medicine, Dr. Gordon, Dublin; Surgery, Dr. Fleming, Dublin; Materia Medica, Dr. Barker, Dublin; Midwifery, Professor Doherty, Galway.

At the summer commencement recently held in the University of Dublin, the degree of Doctor of Medicine was conferred on William Johnston Fyffe; and that of Bachelor of Medicine on Henry Thomas Cary, Richard Thomas Daniel, Thomas Fitzpatrick, and Frederick R. Wilson.

Dr. John Barker has been unanimously chosen curator of the Anatomical and Pathological Museum of the Royal College of Surgeons in Ireland.

Association of Medical Officers of Asylums and Hospitals for the Insane.—The Annual Meeting of the Association will be held at the County Asylum, Michleover, near Derby, on Friday, the 1st of August.

GENERAL CORRESPONDENCE.

TETANUS ARISING FROM THE WHEEL OF A DONKEY-CHAISE PASSING OVER THE CHEST.

[To the Editor of the Medical Times and Gazette.]

Sir,—In these days, when the subject of tetanus occupies much Professional attention, I doubt not the following case which has just come under my notice, as the Union Surgeon of this district, may be deemed worthy of interest, showing, as I consider, how apparently trivial the injury may at first appear which can lead to it, how difficult it is in some cases to be aware of its approach, and how insidious it sometimes is in its progress to a fatal termination.

On Saturday, the 5th instant, a lad, aged 18, employed at this season as a donkey-driver, walked into my surgery, apparently suffering very acute pain, which he referred to the "pit of the stomach shooting through the back." I could obtain no opinion of his own as to the probable cause of it, either from injury or diet; he merely said it had come on at about four o'clock that morning (five hours before I saw him), and was getting worse and worse. No allusion being made to any other source of uneasiness, and no mention of any previous accident or injury, I confined my attention to what was specified, and treating it as a severe case of cramp, gave him ℥ 40 tinct. opii in camphor mixture, which he seemed to drink without any hesitation or difficulty. He then arose from his seat and walked away, with directions that he should call again, if necessary, later in the day. About six hours after this, I was requested to visit him, and I found him lying on some straw in a stable, (which I heard had been his usual dormitory for the last six weeks,) upon his face and stomach, and labouring under all the symptoms of tetanus—stiffness and pain of the neck and jaws, voice husky, much difficulty in opening his mouth, and ability to protrude the tongue only to a very short distance; sufficient, however, for me to see that it was white and feverish. The pulse was quick; the muscles of the back were becoming much affected, producing considerable opisthotonos; the intellect was quite undisturbed; there was great remission of all pain and uneasiness if allowed to remain quiet, and to be on his face, but the mere proposal for any muscular effort, such as to be turned, or in any way disturbed, produced such mental excitement as seemed to aggravate all the paroxysms of spasm to the same amount as would arise from the carrying the request into effect; and when raised to the erect posture his chief desire was to "have the back part of the head supported by forcible pressure with somebody's hand."

The lad being homeless, he was removed in a close carriage to the Union-House, where it was ascertained that on the previous Thursday he had tripped-up while running at the side driving a donkey-chaise in which were two ladies, and that the wheel passed over his chest.

He continued his work, however, till late that evening, and resumed it as usual the following day, but (as I have since heard) not without at intervals complaining of a swelling and stiffness about the neck, and which he and some of his associates considered the "mumps;" but the only reason for seeking advice on the Saturday was the pain at the "pit of the stomach," as he described it; and for which, as I have stated, in the absence of any mention of other symptoms, I prescribed. Upon arriving at the Union-House, he did not cease to be entirely free from spasms at any time, but they gradually increased; the breathing became more difficult, and the heart's action more frequent. There was still no insensibility, and death resulted on the Monday morning, at about the same time as he had stated the pain commenced on the Saturday, at the lower part of the sternum, from suffocation induced by spasm of the diaphragm and muscles of respiration.

There was no external injury on the body, with the exception of a slight abrasion of the external skin of the right thigh, which did not seem of much importance; there were, however, marks of recent injury in the cervical portion of the spine, and effusion of blood in the canal of that part, which had become semi-purulent. There was great increase of vascularity of the membranes of the spinal cord—not of the substance; the whole muscular system was rigid; the body might have been held in the horizontal posture by the feet.

There was no rupture of the muscles, nor ecchymosis. I may add, that there was great congestion of both lungs; all the other pectoral, abdominal, and cranial organs healthy.

Upon a review of this case, I doubt not that the symptoms to which my attention was first called, of "pain in his stomach," was the commencement of tetanus affecting the diaphragm—the mischief resulting from injury to the spine by the donkey-carriage passing over the boy's chest.

I am, &c. ALBERT P. OWEN.

Margate, July 11, 1856.

CASE OF THE FOUR SENIOR MEDICAL OFFICERS, SMYRNA.

[To the Editor of the Medical Times and Gazette.]

SIR,—As in your Journal last week you were so kind as to publish the statement of the Senior Medical Officers of the late Smyrna Hospital, I send you a copy of some remarks made thereon by the *Morning Advertiser* of Tuesday; also a copy of a letter we received from Messrs. Arnott and Bowman on the subject. If you can insert the latter and give the substance of the former in the *Medical Times and Gazette* this week, you will greatly oblige Yours, &c.

33, Finsbury-square, July 23, 1856. SEPTIMUS GIBBON.

(Copy.)

London, February 27, 1856.

Gentlemen,—We were first requested to act on the part of the War Office in getting together a Medical Staff for the Smyrna Hospital when Mr. Sidney Herbert was Secretary-at-War, and we continued to act under the authority of the War Office after Lord Panmure became Minister for War, but without written instructions, or any formal appointment or recognized position. Sir Benjamin Hawes will recollect, no doubt, the confusion of that period. It was very difficult to secure at once the services of competent Physicians and Surgeons engaged at home in active practice in the Hospitals, and it was felt to be necessary to offer strong inducements to gentlemen to accept this temporary service at a time of great public exigence.

The terms drawn up were governed by this consideration—they underwent several modifications before being finally settled; and while these changes were in progress it was absolutely necessary to proceed with the selection of the Staff; we believe the final draft of the terms was not drawn up until immediately before the departure of the Medical Officers, and, indeed, until after some of them had left England; and it was not signed by all of them. We state this as a reason for our thinking that your request for a consideration of your present claims is not unreasonable. With regard to the particular claims you prefer, viz., to receive pay for a twelvemonths' service, together with a gratuity of six months' pay, although Government has dispensed with your services a few months previous to the expiration of the year, we think it quite in accordance with the spirit of the agreement under which you were engaged. The gratuity of six months' pay was intended as an inducement to you not to return home under the year.

Undoubtedly, if peace had been made at the Vienna Conferences, and you had been dismissed within the first six months of service, you would not have been entitled to receive eighteen months' pay; but as you have served nearly a year, it certainly seems to us that the gratuity of six months' pay, in addition to that for a year's service, may fairly be asked for by you. We are, gentlemen,

Your obedient servants,

J. MONCRIEFF ARNOTT, F.R.S.
WILLIAM BOWMAN, F.R.S.

To the Medical Officers of the late Smyrna Hospital.

[We have received a copy of the remarks made by our daily contemporary, which, in some forcible remarks, urges the necessity of doing justice to the Senior Medical Officers of the Smyrna Hospital.—Ed. *M. T. & G.*]

HEALTH OF THE ARMY IN THE CRIMEA.

THE Inspector-General of Hospitals serving with the Army in the Crimea, in forwarding his weekly return of sick for the period ending June 7, states:—

That it is gratifying to observe the good health that is enjoyed by all.

Only one death has occurred during the week in the Crimea, and no more than three in the whole army.

There is an increase in the ratio of admissions to strength and in the proportion of sick to well in the Crimea this week, but this is owing to the transfer of sick to General Hospital on their embarkation by Regiments, and not to any actual increase of disease in the army; and, after all, the ratios are low, as the admissions to strength in the Crimea amount only

to	. . . . .	2·49 per cent.
Death to strength	. .	0·003 ,,
Sick to well	. . .	3·93 ,,

And taking the whole Army in Turkey these rates do not exceed 2·38, 0·006, 4·34, respectively, which may fairly be assumed as a very satisfactory condition at this season of the year.

The weather was hot during the week, and there has been an increase of diarrhœa, but not to any considerable extent; and the second case of cholera which occurred in the Royal Artillery was mild, and all three are convalescent. There has been no other case in Balaklava since the man of the 44th was attacked after bathing in the sea, but it is worthy of remark that the second case in the Artillery occurred in Boothby's Small Arm Brigade, where the first case was treated; not that there was any connexion between them, as the first man was taken ill at the powder magazine, which is a detached post, distant fully a quarter of a mile from the Camp of the Brigade.

TRIAL OF WILLIAM DOVE.

POISONING BY STRYCHNIA AT LEEDS.

[Continued from p. 75.]

William Eden proved seeing Dove on Mr. Morley's premises one evening. He saw him again between seven and eight o'clock in the surgery. There was then a different light to what he had left. As he was going across the yard, Dove turned the light down a little. He put his finger in his waistcoat-pocket, and said, "I am just going to light my pipe."

Mr. George Morley examined—I am a member of the Royal College of Surgeons. I was the Medical attendant of Mrs. Dove. I have been the Medical attendant of the family for some years. From September 27 she was an invalid up to the time of her death. She became worse on February 25. I saw her on that day in the latter part of the day. I had seen Mr. Scarth before going to her. I noticed a twitching of the arm once or twice. I had a minute account from Mr. Scarth, and made inquiries of her what was the matter with her. Mrs. Fisher said she had pains in her legs and neck, and spasms. The opinion I formed was that the nervous system was affected. The spasms were of an hysterical nature, and of short duration. I saw her on the Friday and Saturday. She was better on Saturday. I altered my opinion on Saturday night. I had very often seen signs of hysteria. The remedies I gave would have a tendency to check hysteria. On the Wednesday the prisoner said in his wife's presence that she would not recover. I called him aside, and told him not to make such remarks. I then requested him to have a consultation. He said he was satisfied. I told him there was no serious disease and no indication of danger when he expressed the opinion that she would not live. On Saturday I fetched Dr. Hobson. The prisoner again said he thought Mrs. Dove would not live, and if she died he should object to a post-mortem examination—he said it repeatedly. Dr. Hobson went with me to the house. On the Sunday morning I went to his house; he was not there; I then wrote a note requesting a post-mortem examination. I now attribute the symptoms during the week to poisoning by strychnia, finding in the body no other disease which would account for death. Hysteria is more irregular; it does not assume a tetanic character; there is more disturbance of mind. The symptoms I call tetanic are stiffness of limbs, neck, jaw, and a stretching out of legs and arching of back. The sensations in her feet or jaw are not likely to occur in hysteria, but something like them might be. Singly, there is no one that might not be found in hysteria, but all conjointly are not so. Separately and conjointly they are consistent with death by strychnia. I got a letter from the prisoner, permitting the post-mortem examination. I

wrote no answer to it, but I conversed with his mother, and received a letter from him signed Mary Dove, and William Dove. I told Mrs. Dove that he had obtained strychnia from my surgery, and I suspected that possibly by accident there might be poisoning. I have a rough sketch of the post-mortem examination with me. [Witness read the report, the substance of which is contained in the evidence.] Strychnia is a poison, and the effect of it passes away if the patient recovers. It is not a cumulative poison, as in the case of mineral poisons. In the experiments upon animals, none of the symptoms of poisoning by strychnia were wanting. In the case of the death of Mrs. Dove I know no other cause than strychnia. I have no doubt that each of the several attacks was produced by strychnia. Strychnia acts in from a few seconds to an hour, or an hour and a-half after it is given, depending upon the amount given, the person's constitution, and state of health. I should think two or three grains were taken by Mrs. Dove on Saturday night.

Cross-examined—I had seen very little of the prisoner until he came to Cardigan-place—very little of him when a boy. When I mentioned strychnia, he asked me if I suspected him, and said, "If I had done so, do you think I should have done it openly? Do you think I could have been so cruel?" That was the first time I named strychnia. Up to the Saturday I had seen Mrs. Dove every day. I inquired her ailment and symptoms daily. I should not expect to find any traces of hysteria in the body. I did not find any traces in the body that could not be accounted for by the symptoms on Saturday night. I have no doubt that the attacks on the previous days were caused by strychnia. The description I have heard to-day is materially additional to what I saw. Baron Bramwell: Was there any symptom inconsistent with strychnia having been administered on a former occasion?—Witness: Not at all. Every symptom favours the view that it was administered. I found no symptoms that the lungs or the brain were enlarged during the week. Mr. Scarth attributed the symptoms to nervous derangement. It is not a symptom of strychnia that a patient should desire to be rubbed. Such cases are not common, they are very few. It is more common for them to desire not to be touched. She complained ten days before that week of pains in her limbs. It would depend on the amount of the dose whether it would be extraordinary that she should recover and appear well the next day. Hysteria might have the effect of gorging the lungs and the brain. Not shrinking from the touch is inconsistent with strychnia; it is an indication that the patient is not labouring under its effects. There are several instances of persons labouring under strychnia poison desiring to be rubbed. There was nothing in the body inconsistent with the theory that strychnia had been administered on the other days besides Saturday. I never knew a case of hysteria cause death with the same external appearances as those presented in the case of Mrs. Dove.

Mr. Thomas Nunneley, Member of the Royal College of Surgeons, said—I made a post-mortem examination of Mrs. Dove's body, and signed the report which has been read. I have heard the evidence given by Mrs. Wood, Mrs. Whitham, and Mrs. Fisher, in respect to the death of Mrs. Dove. I agree with Mr. Morley. I consider that the symptoms are consistent with poisoning by strychnia. I have experimented for thirty years in various kinds of poison, including strychnia. I heard that Mrs. Dove improved on the Saturday. It was possible that it might have been after taking strychnia; but it was inconsistent with it. I should not have anticipated that if she had taken a large dose of strychnia on Thursday, she would have been better on Friday; but it is not impossible. It might have been so.

Cross-examined—There was nothing in the body that might not be imputed to strychnia taken on the Saturday night. I am of opinion with Mr. Morley that hysteria will simulate almost every other disease, and, among the rest, tetanus. If strychnia had been administered in six doses, I have no doubt that it would be found, and that it is there now. I should have expected to have found it in the tissues of the body, but they were not examined. This case, and the one in London, has done more to advance our knowledge of discovering strychnine than was ever done before. As a matter of knowledge derived from the books, rubbing seems to be desired in slight attacks. I attributed the symptoms of Saturday to strychnia. Hysteria would not account for them.

Dr. Hobson agreed in opinion with Mr. Morley. He thought the symptoms described in this case might be found in an aggravated form of hysteria. In an aggravated form of hysteria the patients would probably be unconscious.

Dr. Christison examined—I am a Physician residing at Edinburgh. I have devoted a great deal of time to the study of poisons. I have heard the report of Mr. Morley and Mr. Nunneley; I agree with both. I attribute the symptoms to strychnia. It is just possible they may be consistent with hysteria; it is unusual in cases of poisoning by strychnia that a patient should be insensible.

Mr. Thomas Teale, Surgeon, said, I have heard the evidence, and I attribute the symptoms to strychnia.—Cross-examined—Had I heard that she had hysteria before, I cannot say that I should have suspected strychnia, knowing the effects to be precisely analogous. I should have expected it to be strychnia, although she recovered and was improved in health the next day. The effect of strychnia is to weaken the body. It is sometimes fatal by producing exhaustion. I have attended to the evidence, and I don't deny the possibility that the symptoms might have been caused by hysteria. By a Juryman—Can a man who has not got himself into a state of delirium tremens be in such a condition as to have the idea of being pursued by spirits? Witness—He might have had those delusions when drunk, or partly drunk.

Mr. William Hey—I am a Surgeon of Leeds. I have traced the symptoms, and attribute the death to poisoning by strychnia. I know of no natural disease that will produce those effects. Cross-examined—Taking the evidence of appetite, I am not prepared to say that the symptoms are not those of hysteria. I do not deny the possibility, but it is a peculiar case where hysteria assumes all the form of and assimilates to strychnia poisoning.

Mr. Richard Hey, sheriff of York, confirmed the last witness examined—I have been a long time in practice in York. Looking at the symptoms during the week, I attribute death to strychnia. I have never seen a case of death by strychnia. I have seen many cases of hysteria, where the symptoms would be accelerated by strychnia. The symptoms inconsistent with hysteria are the screaming and the pain. I never saw spasms so intense in hysteria as they are described to be in this case. I have never known a case of hysteria where the walking across the room gave pain to the patient. Looking at all the symptoms in conjunction, I don't know of any case of hysteria like this, and I do not believe this is a case of hysteria.

This closed the case for the prosecution.

Mr. Bliss then proceeded to open the case for the prisoner. He said, there are one or two facts in this case which may be taken without argument. No one will deny that the prisoner is a man of intemperate habits; often drunk; and that he is rather weak-minded. If then you now heard for the first time that a family consisting of three persons: one an invalid, who had long been suffering from hysteria, the other an unwise, weak man, a drunkard—and a servant; the servant changed, and visitors constantly coming. Of such a family you have heard for the first time. For the first time you have heard that poison was brought into the house to poison cats. If you heard for the first time of such an ordinary and not unusual act as the obtaining of poison for such a purpose; if you heard that that poison was of a deadly nature, and that one grain would be destructive of human life; if you heard it was kept in a razor-case, not under lock and key; if you heard it had been put upon meat, nay, more than once, on cheese; if you find the poison in the bedroom, in the kitchen, down stairs in the sink by the pump, in the pantry, on the candlestick, on the chimney-piece, on a plate, and on a dust-pan; if the poison had been thus used; if any of your friends and acquaintances had been so imprudent and indiscreet as to have used the poison in that manner, would you not have thought it your duty to say, "It is the most imprudent and the most rash thing in the world!" Would you have been satisfied with the declaration, "There can be no danger"? Considering that it was light in its nature, and that it might get brushed into some articles of food, would it not have been an act of monstrous imprudence, almost amounting to insanity, if he still continued to use that poison, and kept it in the house. If, before the event, you would have supposed it very likely to happen, would you think it less likely to happen, as a probability, after the event has occurred that you had anticipated? But ah, there was murder! Away goes all sympathy, and the result of all experience; there is the suggestion of murder, and curiosity demands inquiry.

say my learned friend has taken for granted the truth of the suggestion for murder. Now what sort of murder is this? What is the view my learned friend takes? It is that a man who has been about three years married—who married a wife about his own age—has conceived the idea of killing her by a drug of the most fatal nature, which he will administer in small doses, so as to keep her in torture a whole week; write for her mother; write for his own mother; make arrangements for her religious consolation, by calling upon and bringing in a clergyman who was a stranger to him; that he kept her alive during a week by doses just enough to aggravate her suffering, and not enough to kill her; he objects to a post-mortem examination being held upon her body, and afterwards kisses her cold corpse and clay-cold lips, and all this because he wanted to marry a widow next door; that for this purpose, and for such a purpose, he committed a crime so hideous, so atrocious and enormous as that which my friend attempts to make out. As the case now stands, there is the strongest presumption against his committing a crime so cruel, so enormous, and so overwhelming in its atrocity. But the next, and a most important fact,—the prisoner had in his possession poison of some kind, and with it killed his wife. Let us look at it further. How did he get possession of it? If it was done covertly, ever denied or concealed, or if there had been one spot of secresy at all,—but there had been no real concealment at all. There was nothing in the case of Palmer to encourage him to use strychnia, or to say that he had got it to poison cats. I am dealing with the case as if he was insane; but I want you to look at another aspect of the case. In cases of insanity, the instinct of imitation is very large, and the fear of detection never operates on the mind. Imitation it is that produces a repetition of the crime; but if he went innocently, without any intention of committing a crime—if he really wanted poison to poison a cat, Palmer's case may have suggested the kind of poison he was to use; and his own innocence, and the consciousness of his own intention, would alone have permitted him to apply for and use the same poison. But in what terms does he ask for it? He said to Harrison, "Can you get or make me any strychnia?" If the person who put that question had a delusion, and had power over spirits—if he had a delusion that Harrison could torment his wife, whom he looked upon as not a right woman—If he had a delusion that Harrison was more powerful than the devil, he would probably have used the very phrase, "Make me some strychnia." It might have been consistent with that delusion, and only with that. But, if he had been sane, if there is no delusion of this kind, I would ask, Is this the conduct of a man who is about to commit poisoning?—for, as I said before, it is generally a secret crime. The learned counsel then proceeded to go through all the facts of the case, and after reviewing the conduct of the prisoner during his whole life, and reciting various acts having an insane tendency, which are referred to in the evidence, he proceeded to call his witnesses:—These, many of them of high respectability, clergymen, schoolmasters, etc., deposed to the following facts in connexion with the prisoner:—That his character was altogether repulsive; that he was elated or depressed without reasonable cause; there was no resistance to evil, or the indulgence of vicious inclinations; that he threatened to shoot his father; that he was frequently punished at school, but did not regard it in the least; that he appeared to have no idea of consequences, of which he was quite regardless; there was no idea attached to his use of religious terms; that he partook more of the animal than of the rational nature; that he put oil of vitriol on cows and a calf, burnt cats' eyes out with vitriol, and raised some beasts by a beam, so that they could only rest on the fore-legs; that he would associate with ploughboys; no impression could be made by his schoolmaster on either heart or head; could not be introduced to company without great mortification to all; when he conversed was always irrational; that he frequently threatened to do bodily mischief, generally by shooting; set a housekeeper's cap on fire twice, while in wear; put the muzzle of a loaded pistol in his mouth; pulled up and cut up apple trees; once went into a field with his shoes and stockings in his hand; spent a night buried in oat sheaves; often helped to cook, and assist in woman's work. Some witnesses spoke generally to their belief in his lunacy. To one he told a story of his journey to America—that he engaged with the Red Indians, became their chief, and travelled with them—that he got in contact with a bear, which took him up in its paws, squeezed him, and attempted to suffocate him with its breath—that he had presence of mind to take out a knife and run it into it, and let its bowels out. He then went back to the Red Indians, and was crowned afresh with laurels. "In July, 1853," says one witness, "he was found laid in the road on his face—his eyes appeared to be red with weeping. He was sober then. His hands covered his face. This was the road leading from his house to the turnpike road. I have seen him riding on a black horse as fast as it could go. I saw a nail in his hand, and he pricked the horse's back with it, making it kick. The boys and women were looking after him in all directions. My opinion was, that he was showing how expert he was in horsemanship. He has sent for me, as he was afraid of ghosts and goblins, and did not like to go home in the dark, On one occasion he said he had been in the country, and saw them reaping. He cut some of his own green barley, about an acre, and said he would not be behind anyone else. The barley was quite green. In June, 1854, when he contemplated retaking his farm, he went to a wizard to act upon the steward. He told me one morning that the charm was out, that I was to go the same way back, and I should observe some peculiarities in the appearance of the steward. He mentioned the name of the wizard—once I was with him—his name is Harrison. The prisoner could not bear crossing. He was practising magic, or something of the sort, once. I went there with Palmer, a business man. Prisoner brought out a plate, a saucer, gunpowder, and some liquid in a bottle, and lit a paper at the fire. He produced some needlework, and said it was his own. He mixed the liquid and gunpowder, and then went to the fire with the paper. He said nothing about what it was. When I went with him to the wizard, he (the wizard) was telling about the formation of man, and said, if he had him to make he would make him much better than he had been created—he would put the calves of his legs in front, and then he would not rap his shins in going up a ladder." Some letters written by the prisoner were then put in and read, one addressed to the Devil.

Dr. Caleb Williams, of York, was then called. He said—I examined the prisoner two days before the trial. I think him to be a person of unsound mind. I have been led to this conclusion by the evidence I have heard in this court with respect to his violent emotions; and his belief in supernatural agency, must be taken as one indication. In persons of unsound mind the commission of horrible crimes appears to be the result of imitation. I don't think the letter to the devil to have been simulated. The letter to the devil is written in blood. He told me it was written under satanic influence. As a matter of science, I believe that his delusion that he had sold himself to the devil was a genuine one. I have heard of Thompson's evidence as to the prisoner's incantation with the saucer, gunpowder, &c., and I believe this was connected with his believing in supernatural agency. With regard to his talking to different people that he met about the effects of strychnia, it indicates the feeble power of his mind. The effect of drinking upon a quiet lunatic would but make him violent and dangerous. Persons who are subject to attacks of insanity, exhibit a tendency to take strong drinks. I don't think the prisoner has the power of controlling his emotions and passions at all times, or some of them. There would be periods when he would have control over none. His shooting the cat, after threatening his man, showed an uncontrollable impulse to injure or to destroy life; and seeing that it was not expended in injuring the man, he shot the cat. The effect of confining a person of sound mind, liable to drink, for several weeks, would be to reduce him to a calm state, and he might be able to write a calm letter. It would be quite compatible with his condition. Turning my attention to the fatal week—the week of his wife's death—I should say that while his drinking increased his propensity to take life, his mind was probably influenced by his belief in supernatural agency, and was therefore subject to a second delusion. A person labouring under such a delusion might retain his power of adapting means to an end, and judging of the consequences. Under these delusions he would have no power of resisting any impulse. Cross-examined.—I have not a strong religious objection to capital punishment—I don't believe it to be wrong. I was in company with the prisoner an hour on one occasion, and an hour and a-half on the other. If the prisoner gave poison six or seven times to his wife, I should not call that an impulse, but a propensity—an uncontrollable pro-

pensity to destroy, to give pain, or to take life. This propensity may for a time be a permanent condition of the mind; and this would lead to a constant seeking to accomplish the object. I think that a person with such a propensity, committing murder, would not know that he was doing wrong. The fact that he said to Mr. Morley, "Do you think I have been so cruel? do you think I have poisoned her?" has been to me a difficulty. I think such a person would fear the consequences of being punished if he were found out. He would know, probably, that he was breaking the law, though he might not know at the time that, if he committed murder and were found out, he would be hanged. His mind would probably be so occupied by his propensity to poison, that he would not know he would be hanged if found out. An impulse comes on suddenly; a propensity comes on slowly, and may last a considerable time. Supposing a man of cruel disposition nourished a desire to get rid of his wife, and poisoned her; he would be under an insane propensity. When he had acquired the propensity to kill, so that he could not control it, he would be insane, as his propensity to destroy her life would be beyond the control of his mind. The continued existence of any propensity or desire may become a disease, and he may have no power over it. This is moral insanity. If a man nourishes any passion until it becomes uncontrollable, that is moral insanity. He would be irresponsible, if he is insane. A belief in supernatural agency is an indication of insanity. A belief in dreams, mesmerism, astrology, spirit-rapping, and "second sight," is indicative of a weak mind. I should say that talking to various persons about strychnia as the prisoner did, is an indication of a weak mind. I say this, assuming that he had poisoned his wife, and feared it should be known. Re-examined—Imitativeness in criminal acts is an indication of unsound mind. The talk about Palmer's case may have produced this imitativeness in a weak mind. If a propensity to, and an indulgence in, cruelty existed from the cradle, in the presence of those who would punish him, it would be an indication of a very insane state of mind. Madness is very frequently accompanied by great cunning, when the mind is reasoning on false premises. Though the impression may arise from insanity, there may be great cunning. There were many occasions spoken of when I should have certified as to his being a lunatic. I have known highly respectable persons to carry off articles from a party under an insane monomania. —By the Judge—Brooding over a cause of injury or ill-will for a long period would probably induce insanity. The time at which the propensity to take away life or do injury would become uncontrollable depends upon the surrounding circumstances and the state of the mind. Indiscreet but sane men will talk of things which are in their minds; for example, a sane man, if indiscreet, might say that "something will happen to so and so," while he was intending to set that man's stacks on fire. For a man to say this, and to talk in this way, would be no indication of insanity, merely indicative of a want of discretion.

Dr. Pyemont Smith, of Leeds, said—I am the proprietor of a lunatic asylum, and have paid attention to cases of lunacy for many years. I have given the study of lunacy great care and attention. I have heard the evidence in this case, and my opinion is that the prisoner is of unsound mind. From the evidence, I should say that from the 25th February to the 1st of March he was of unsound mind. I believe he has been of unsound mind for twenty years; but I do not think he has not known right from wrong during all that period. He did know right from wrong in that fatal week. A man may be unquestionably and decidedly insane, and yet know right from wrong. A man insane may know right from wrong, and still be unable to control his acts, and incapable of refraining from doing that which he knows to be wrong. In the fatal week, I do not say that he was utterly unable to refrain from any act. Circumstances may have enabled him to refrain; possessing the poison, he was regardless of the consequences, and could not refrain.

Mr. John Kitching, Superintendent of the Retreat, near York, said—I have 100 patients under my care. I have heard the evidence, and from it I am of opinion that the prisoner was insane during the fatal week. I examined the prisoner at the Castle, when Dr. Williams was present. His conduct during the fatal week was so consistent with what had gone before, that it was exactly what I should have expected. He has been insane all his life. By saying I was of opinion that he knew he was committing murder, I mean that he knew he was killing his wife. Here we have a man who was originally deficient in mental power, and he is also insane. This condition of mind renders him liable, during the whole of his life, to commit any irrational, vicious, cruel, or malignant action that presented itself to his mind. By vicious and malignant, I do not mean in regard to motive, he being insane. He was educated by pious parents, and put to school; but he was incapable of receiving an ordinary amount of secular education or the smallest elements of religious instruction. He was carried away by the slightest temptation to drunkenness, cruelty, and absurd actions. Where he loves, he loves with intensity; where he hates, he hates with terrible malignity; and where a wife trusts herself into the power of such a man, the result would be just the catastrophe which has happened in this case.

Mr. Overend then replied, and made the following observations: The defence called not the best witnesses, but those whose views were exaggerated. Did the friends of the prisoner consider him insane? Was that their opinion when they sent him to school; to college; put him out to learn farming; sent him on a tour through America; placed him on a farm to do business for himself; and allowed him to get married? Did Mrs. Jenkins or her son believe him insane, when he was allowed to marry the daughter of the one and the sister of the other? Could they believe that a lady like Mrs. Jenkins would entrust her daughter to a madman's care? The defence was, that he had become mad—the prosecution said he had not; that he had been a bad boy, a vicious boy; and that, having become a bad and vicious man, and having a strong motive to impel him, he had poisoned his wife. He had made no attempt on this occasion to mislead the judgment of the jury, but he was bound to lay before them the facts to show that the prisoner had a hatred towards his wife; that he laid plans for the accomplishment of her death; that he went on day after day administering the poison, producing those dreadful agonies which ended in death; that he put off the post-mortem examination as long as he could; and there was evidence of arrangement and deliberation which rejected and renounced all idea of insanity.

Baron Bramwell then commenced his summing up. His Lordship said, every man was presumed to be sane, until the contrary was proved to the satisfaction of the jury. To establish a defence on the ground of insanity, it must be proved that he was, at the time he committed the offence, labouring under such defect of reason, and such a disease of the mind as not to know the nature of the act; or if he knew it, then that he did not know that what he was doing was wrong. If he did an act knowing it to be wrong, or contrary to the law of the land, he would be punishable. If he laboured under a partial delusion—if he was under the delusion that the deceased had inflicted some injury upon him, and murdered her under that delusion, he would be none the less amenable to punishment. If they let it go forth to the world that they would not punish a man who had a propensity or desire to do wrong, they would take away from persons in that position one of the things that would have prevented them from indulging in that propensity. Hence, to a man of weak mind and strong animal propensities, the knowledge that the law would not punish him would be to take from him one of the first and most powerful reasons for not repeating his crime. The Medical gentlemen had proved to them, almost to demonstration, that Mrs. Dove had died of the effect of strychnia; and the case for the prosecution was that this strychnia had been administered by the prisoner. His Lordship then went through the evidence for the prosecution bearing on this part of the case. On the part of the prisoner, it was said that he did not admit that his wife had died of strychnia at all; that the Medical evidence was open to dispute; that the strychnia might have been taken by accident. With regard to the five attacks preceding the fatal one, it was said they were in all likelihood caused by hysteria, and were believed to be so by the Medical men prior to death. Those were the two ways in which the prosecution and the defence put their respective cases. They would, therefore, next proceed to consider whether the prisoner, at the time he administered the poison, did not possess sufficient reason to know that the act he was doing was wrong. His Lordship then read the evidence of the non-medical witnesses called for the defence to prove acts of insanity on the part of the prisoner during greater part of his life. The effect of that evidence, he said, was that the witnesses swore that the prisoner was, in their opinion, little better than an idiot, incapable of reasoning, and guilty of the most insane acts. But let

him direct their attention to some letters which had been put in. Having read the letters to Mrs. Jenkins and others, his Lordship asked, Were these letters the production of an idiot, of a person with only a glimmering of intellect? Or was this evidence given out of a feeling of friendship and compassion for the prisoner, and after the witnesses had talked it over and over again until they became persuaded of its truth? He must say that if the evidence were true—if the opinions formed by these witnesses of the prisoner's idiocy were well founded—it was most wonderful that he—an idiot, a man with the smallest possible glimmering of intellect—should be the writer of a series of such reasonable, sensible, appropriate, and well-expressed letters. Of course it was possible this might be true—the prisoner might be, after all, a man of little intellect. This was a question for the jury, and to them he left it. But though he was a dull boy, a mischievous boy, a bad boy, and became a man of a superstitious and ill-regulated mind, and though the witnesses had been culled with care from those who had known him, and some of them spoke with exaggeration and without due reflection, and although there could not be the least doubt that he was a man of bad temper, of brutal disposition, and of small intellect; yet the learned counsel for the prosecution very properly asked, did these witnesses, did the prisoner's own parents, relatives, and friends, believe him insane? Was not such a belief negatived by the facts that he was allowed to go on his travels in America, that a farm was taken for him, that he was allowed to marry a respectable young woman, and go into housekeeping, that he visited his relatives and friends, and was visited by them in return, and that he was always allowed to act as if he were a man of sound understanding? With regard to the letters written in prison, they were open to suspicion. If they were honest, and not written for the purposes of the defence, they would certainly furnish evidence in favour of his insanity. But if the jury believed that the prisoner wrote them for the purpose of making them of use in the defence, then they were the strongest proofs of his sanity. As to the piece of paper found on the person of the prisoner (the letter to the devil), if the jury believed it was not written for the purpose of being found, it would show that he was labouring under a delusion at the time he wrote it. "Wealth" was written twice—"Welth" and "wealth," the first being crossed out. If he had been writing this for the purpose of its being found, he (the Judge) did not know why the prisoner should have corrected his bad spelling. If genuine, it was difficult to suppose that the man who wrote it could be of sound intellect. If not genuine, it would rather lead to the conclusion that he was cunning enough to know what he was about. The same remarks applied to the letter addressed to the schoolmaster at York Castle; and if the jury believed that the letter to the devil was written for the purpose of being found, it was a proof that the prisoner was sane enough. The prosecution went further, and called attention to the fact, that this insane man—this man, who was scarcely removed from an idiot—this man, who was incapable of reasoning—this man, who was of the most violent temper, and the creature of uncontrollable impulses—took care that his violent temper and uncontrollable impulses never brought him into trouble! Could they believe this deliberate scheme, as it was insisted upon by the prosecution, and still believe that its contriver was a person without intellect, incapable of reasoning, and scarcely removed from an idiot? His Lordship said he now came to one bit of evidence which he had reserved for the last—evidence of a speculative and scientific character—evidence which he approached with every respect for the Medical profession; but he entirely concurred with the learned Judge whose opinion had been quoted (Dr. Lushington), that it would be better, instead of listening to these speculative opinions, for the jury to decide upon the facts which were detailed before them. [Having read the evidence of Dr. Williams, his Lordship said]—I don't know whether you understand this? If you do, I congratulate you. I confess I don't. Of course I do not say you don't understand it; but I say, "place what value upon it you think it worth." Referring to the evidence of the Medical men examined for the defence, in regard to the question of propensity to commit crime becoming moral insanity, his Lordship asked why, if this theory were correct, Dr. Williams should not be called upon, when a man was placed at the bar after two or three convictions for felony, to prove that there must not be a conviction, on the ground that the thief had a delusion in regard to the rights of property, had a propensity to rob the public at large, an uncontrollable impulse to appropriate the property of others, to steal everything in general, and was therefore morally insane, and not criminally or penally responsible for his thefts. Dr. Smith had assured them that the non-possession of the poison might have made the prisoner refrain from this crime. Why, he really thought they might (without Dr. Smith coming all the way from Leeds to tell them) have been able to say, that if the prisoner had no poison in his possession he could not have poisoned his wife. Dr. Smith also told them that the prisoner knew right from wrong during the fatal week; but the temptation to commit the crime was too strong. Why, this was the case with all criminals. They committed crimes because the temptation was too strong for their fear of the penal consequences of the law for their crime. These "experts in madness" were in effect saying—"We must take away one great check, we must have one check the less upon these persons who have an inclination to commit crime." Such was the opinion of these "experts in insanity." Then Mr. Kitching told them he believed the prisoner had been insane all his life. The same gentleman said that the prisoner knew he was committing a murder; that he was aware he was likely to be punished if found out; and that he had a knowledge of right and wrong during the fatal week; and when he was re-examined by the Counsel for the prisoner, he declared that the prisoner did not know that he was doing wrong. What could they make of this? If the theory of these gentlemen were true of the prisoner, it would be equally true in the case of every criminal, and form a conclusive reason for liberating every person charged with crime. It would be affectation in him (Baron Bramwell) to pretend that he did not put a value of his own upon this scientific evidence. He frankly told them that he would rather take his own opinion upon the facts than the evidence of the three Medical gentlemen that had been called before them—not that he undervalued those gentlemen, but he would rather exercise his own opinion than be led by the theories of gentlemen who held opinions which were extreme in their profession; and it was to be borne in mind that these three gentlemen had not told them that the speculative opinions they had propounded were the opinions of the Profession generally.

VERDICT:—"Guilty; but we recommend him to mercy on the ground of defective intellect."

THE MEDICAL DEPARTMENT OF THE ARMY.

The following is the Report of the Select Committee appointed on the Medical Department of the Army:—

1. That the governing power of the Army Medical Department should be vested, as at present, in one individual, and not in a Board.

2. That the Commander-in-Chief should exercise a control over the appointments and promotions of the Director-General.

3. That the principle of general competition, or of special examination, in recognized Medical Schools be applied, as far as practicable, to admission into the Army Medical Department.

4. That no Medical Officer shall be promoted to be Staff-Surgeon of the First Class until he shall have served not less than three years as a Regimental Medical Officer.

5. That the rules which guide promotion be published.

6. That retirement be optional after twenty-one, and compulsory from Regimental and Second Class Staff-Surgeon duty after thirty-five years' service.

7. That facilities be given for the purposes of study in civil hospitals, such precautions being taken as will guarantee the period of absence being passed in such study.

8. That the regulation which requires officers of the department to serve two years in the rank to which they have been promoted upon the pay of their previous rank be abolished.

9. That the pay of the Army Surgeons and Assistant-Surgeons be increased, as may be determined by the Executive Government; but this committee is in favour of 10s. per diem as the pay of the Assistant-Surgeon on first appointment.

10. That the relative position of Medical and combatant

officers be not changed, and that the Army Surgeons be not made a more military body than at present.

11. That the system of confidential reports should be placed upon the same footing with those relating to combatant officers.

12. That the Committee agree with the recommendation of the Director-General as to leave of absence, honorary distinctions, funeral honours, special services, and relative rank.

13. That as it has been stated to this Committee, that the supply of Medical Officers was insufficient during the late war, the establishment of Civil Hospitals may have been necessary; but your Committee trust the recurrence to such alternatives may be avoided for the future.

14. That a person duly qualified to compound medicines, and attested for military service, should form a part of the Medical establishment of every regiment; and that those persons should be selected either from the Medical Staff Corps, from the ranks of the regular army, or from the orphan sons of soldiers educated at the Military Asylum; that they should be regularly trained and educated with a view to the duties to be discharged; and that no one shall be considered eligible for employment until he has given proof, on examination by a Board, that he may with safety to the sick soldier be entrusted to compound the medicines to be administered to him.

15. That the Medical Staff Corps, which was raised for service during the late war, should continue a part of the peace establishment; and that it is desirable it should be recruited from the ranks of the army, provided volunteers offer in sufficient numbers, possessing the requirements deemed essential to qualify for the particular service on which the corps is to be employed.

16. That the standard of providing clothing and earthenware vessels for eating and drinking at Haslar Hospital be extended to the general Hospitals of the army; that accommodation for sick officers be provided in them; and that a military lunatic asylum be provided, as embraced in the design for the New Military Hospital at Southampton.

17. That the question of hospital stoppages be left to the discretion of the Horse Guards and the War Office.

18. That at the outbreak of any future war, separate transport should be provided for the conveyance of all medical stores; but your committee leave the minor arrangements of detail to the Executive.

19. The committee in the course of its inquiries have had incidentally brought before them the admirable manner in which the Army and Civil Surgeons have performed their duties in the East, and your committee are glad to take this opportunity of recording the high opinion they entertain of their merits.

July 3.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.—Thursday, July 17.

HOSPITALS (DUBLIN) BILL.

On the motion for the committal of this bill—

Mr. Cowan moved that the House should go into Committee on the measure that day three months. He objected to the measure, because he thought that grants should not be made by Parliament for the support of the Dublin hospitals, when similar grants were not made for the support of the hospitals in Edinburgh, and other hospitals throughout the kingdom.

Mr. Horsman said they had not then to decide whether grants should be made to the hospitals of Dublin, or whether such grants were proper—both questions having been already settled by a Committee of the House, and by the Commission appointed to report on the subject last year; and what the House then had to do was to give effect to the report of that Commission. This was not a Bill to grant money for those hospitals, or to make these grants permanent, but merely a measure to make provision in accordance with the recommendation of the commission for the better management of those institutions.

Mr. Williams objected to the bill.

Colonel French and Mr. Michel supported the measure, and Mr. Hadfield opposed it.

After some further discussion, in which Mr. Napier, Mr. Crawford, Mr. Vance, Mr. A. Hastie, and Mr. Wilson took part,

The Committee divided—53 for, 22 against: Majority, 31.

The House accordingly went into Committee on the bill.

The first 8 clauses were agreed to.

Clause 9, which provides that Medical officers shall receive a superannuation allowance, amounting to two-thirds of their salaries, gave rise to considerable discussion, in the course of which objections were raised that no period of service, before the officers should be entitled to compensation, was fixed, that compensation to Medical officers would impoverish the funds of the institutions, and that the amount fixed by the clause was too great.

Ultimately, upon a division, there appeared a majority of 14 for the clause.

In reply to Sir H. Willoughby,

Mr. Horsman stated his willingness, on bringing up the report, to move the addition of a proviso to the clause, making the amount of superannuation in accordance with the provision of the Superannuation Act.

The clause was then ordered to stand part of the Bill.

Clauses 10, 11, 12, and 13 were agreed to, after the insertion of some amendments.

On clause 14, which provides for the appointment of a Secretary to the Board,

Mr. Horsman proposed to make the salary of that functionary 300*l.* a-year.

Mr. Grogan objected to this amount, contending that the duties of the Secretary would be limited to sending out a few circulars.

Mr. Vance and Mr. A. Pellatt also opposed the motion.

Mr. S. Fitzgerald moved as an amendment that the blank be filled up with 150*l.*

The Attorney-General for Ireland defended the original motion, and stated his belief that they would even find difficulty in getting a competent man to perform the duties of Secretary for 300*l.*

Mr. Barrow supported the amendment.

The Committee divided. Majority, 25 for the amendment.

The words "one hundred and fifty" were then inserted, and the clause, as amended, was agreed to.

The remaining clauses and the preamble were also agreed to, and the bill, as amended, was reported.

GENERAL BOARD OF HEALTH CONTINUANCE BILL.

The House went again into Committee on this Bill, and the remaining clauses having been agreed to, the House resumed.

Friday, July 18.

SMITHFIELD MARKET.

The Chancellor of the Exchequer stated, in answer to Mr. Ker Seymer, that there was a question between the Government and the City of London Corporation as to the property of the site of Smithfield Market, and until that question was decided no effect could be given to the recommendation of the Smithfield Committee to convert the site into a place of public recreation.

ACTING ASSISTANT-SURGEONS.

In answer to Major Reed, Mr. F. Peel said, that the Acting Assistant-Surgeons of the Crimean army had been distinctly told that they could not receive half-pay, unless they should have served three years on full pay; but that they should, on being discharged earlier, get a gratuity of two months' pay.

MEDICAL NEWS.

Royal College of Physicians.—At a Comitia Majora Extraordinaria held on Monday, the 21st inst., the following gentlemen, having undergone the necessary examinations for diploma, were admitted members of the College:—

Dr. Glover, Royal Free Hospital.
Dr. Pavy, Finsbury-square.
Dr. Stone, St. Thomas's Hospital.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the Meeting of the Court of Examiners on the 11th inst.:—

Bruneau, Edward, Mauritius.
Bushman, Frederick Christian, Dublin.
Fry, John Cornwall, Nenagh, Tipperary.
Fuller, Harry, Stowmarket, Suffolk.
Graham, John George, Alma-place, Stockton.
Harrison, Arthur Robert, Keppel-street, Russell-sq.
Morgan, Edward Maurice, Tavistock-place.
Williams, Peter M. G., Toryarched, Pembrokeshire.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 17, 1856:—

Dew, John Wormald, Malton, Yorkshire.
Dufty, Frederick, Stoney Stratford.
Edwards, Daniel Thomas, Cardiff.
Hulke, Frederick Thomas, Deal.
Rouse, John Thomas, Colchester.
Simpson, Thomas, Halstead.
Way, John, St. Austell, Cornwall.

DEATHS.

Allaway.—July 20, at Brussels, Joseph Tucker Allaway, M.D.

Beckett.—July 21, at 5, Russell-place, Fitzroy-square, Thomas Beckett, Esq., formerly Surgeon of the Grenadier Guards, in his 83rd year. M.R.C.S. 1794; F.R C.S. 1843.

Bedwell.—May 16, at Kamptee, aged 45, Exeter Gustavus Bedwell, Esq., Surgeon E.I.C.'s Service.

Bevan.—July 15, at Eaux Bonnes, Basses Pyrenées, William Bevan, Esq., F.R.C.S L.,late of Manchester.

Ferguson.—July 22, at Park Hill, Clapham, J. Ferguson, Esq., M.D., late of Kingston, Jamaica. M.D. Edin. 1815; F.R.C.P. Edin.; late President of the College of Physicians and Surgeons, Jamaica, and of the Board of Health of that colony.

Longmore.—Recently, Thomas Longmore, Esq., aged 77, formerly Surgeon Royal Navy.

Thom.—July 5, at Dobcross, near Manchester, Alexander Thom, Esq., Surgeon. L.R.C.S. Edin. 1816; formerly Regimental Assist.-Surg.

Williams.—July 21, at Nottingham, Dr. John Calthorp Williams, M.D. This gentleman's death was sudden, occasioned by a lamentable accident. He was returning in his carriage from Wollaton Hall, Notts, the seat of Lord Middleton, after dining with his Lordship, and when near the town the horse became restive. The unfortunate gentleman was thrown out of the carriage, and, falling upon his head, was fearfully injured. Dr. Williams was conveyed to his residence at Nottingham, where a number of his professional friends attended him, but he died from the effects of the accident on Monday night. M.D. Edin. 1824; F.R.C.P. Edin. 1845; Graduate of the University of Edinburgh, 1824; Visiting Physician to the General Lunatic Asylum, Nottingham; Hon. Consulting Physician to the Blind Asylum for the Midland Counties; late Physician of the General Hospital, and of the Nottingham Dispensary. Author of "Practical Observations on Nervous and Sympathetic Palpitations of the Heart," 1836; Second Edit. 1852.

APPOINTMENTS.

Dr. Hall Davis was appointed to the office of Physician-Accoucheur to the St. George's and St. James's Dispensary on the 22nd inst.

Mr. Huxley to be Examiner in Comparative Anatomy and Physiology in the London University, in place of Dr. Carpenter.

Mr. Busk is spoken of to replace Professor Owen at the College of Surgeons.

Mr. Fergusson is the successful candidate as Examiner in Surgery at the London University.

Mr. Bowman, we understand, will assist Mr. Fergusson, as lecturer at King's College.

King's College Hospital.—Dr. Charles Murchison and Dr. Conway Evans have been elected as Assistant-Physicians; and Messrs. Wood and Hulke as Assistant-Surgeons.

London Hospital.—We are requested to state, that the operating day at the London Hospital has been changed from Friday to *Thursday*, at 1·30.

The Meeting of the British Association.—The programme of arrangements for the forthcoming meeting of the British Association at Cheltenham has now been settled. The first or opening meeting will be held at the Cheltenham Proprietary College, on Wednesday next, when the Duke of Argyll will formally resign the presidency, and the inaugural address will be delivered by the President for the year, Dr. Daubeny. On the following day (Thursday) the first *conversazione* will be held at the Pittville Pump-room. On Friday, August 8, the sections meet at the College, and in the evening Colonel Sir Henry Rawlinson will deliver a discourse on the recent researches in Assyria and Babylonia, and on the results of cuneiform discoveries. On Saturday the sectional meetings will continue, and in the evening the second *conversazione* of the members will be held at the Assembly-rooms. On Monday (the 11th) the sections proceed as usual, and there will be a lecture by Mr. W. Grove on the correlation of physical forces. On Tuesday the sections will resume their scientific discussions, and the president's dinner will take place in the evening. On Wednesday (the 13th) the proceedings of those sections not formally closed on the preceding day will be brought to a conclusion, and the general meeting will take place, to make arrangements for the scientific matters which will have to be proceeded with during the ensuing year. The Cheltenham people give a grand flower-show this afternoon, and on Thursday it is expected excursions will be made to the most interesting localities in the neighbourhood. The following selection of presidents has been recommended by the council for the meeting:—Mathematics, Professor Walker; Chemistry, Professor Brodie; Geology, Professor Ramsay; Natural History and Physiology, Professor Bell; Geography and Etymology, Sir H. Rawlinson; Statistics, Lord Stanley; Mechanics, Mr. G. Rennie.

Academie dé Médécine.—M. Beau has just been elected a member of the Académie, in the section of Pathological Anatomy, he having received 40 votes, while his nearest competitor, M. Ch. Robin, received but 15. M. Parchappe was placed second on the list of recommended candidates by the preliminary committee, 2 out of the 5 only voting for placing him at its head. He consequently withdrew his name.

University of Moscow in 1855.—There were 1338 students, 817 of the number studying medicine. The library contains 75,200 works in 121,504 volumes. The physical cabinet contains 413 instruments; the zoological, 66,223 specimens; the mineralogical, 11,481; the anatomical, 7065; and the pathological, 1152 specimens. The botanical garden contains 7475 plants, and the herbarium 12,000 dried plants. The Medical Clinic of the Faculty received 472 patients besides 142 cholera cases, and the Surgical Clinic 252 patients. The dispensary had 1510 patients, and at the Midwifery Clinic 592 women were delivered, 30 of them dying. In the Hospital Medical Clinic there were 1676 patients, and in the Surgical Clinic 779. There were 65 great operations, most of them being performed by students.—*Berlin Zeitung.*

The Assembly of German Medical Practitioners and Naturalists is to be held this year in Vienna, commencing on the 16th and terminating on the 22nd September.

Piedmontese Medical Officers in the Crimea.—According to the *Gazetta Medica Italiana*, the number of deaths among these amounts to 13.

The Medical Profession in Austria consists of 6398 physicians, 6148 surgeons, 18,798 sage-femmes, and 2951 pharmaciens. There are 684 hospitals, capable of receiving 58,533 patients.—*Gaz. Med. Italiana.*

Charge of Manslaughter.—At the Midland Assizes, on Friday, William Boyden, a quack doctor, known by numerous aliases, who traveled about the country selling his mischievous compounds, was charged, upon the coroner's inquisition, on view of the body of Anne Read, lying dead at the parish of Wintringham, with feloniously killing the said Anne Read. The jury, after retiring, returned a verdict of guilty, but strongly recommended the prisoner to mercy. Sentenced to three months' imprisonment.

Mortality Notabilia.—In the week that ended on Saturday the deaths of 1018 persons, viz., 551 males and 467 females, were registered in London. The average number in

the ten corresponding weeks of the years 1846—55 was 1032, and if this is raised in proportion to the increase of population it becomes 1135. The deaths of last week are therefore less by 117 than the rate of mortality which ruled in corresponding weeks would have produced. The mortality of zymotic diseases in the aggregate is below the average. Three children died of cholera, viz., a boy, aged 6 months, at the Kensington workhouse, "cholera infantum;" a boy, aged 18 months, at 12, George's place, West, Bermondsey, "English cholera (2 days);" and a girl, aged 4 months, at 9, Burdett-street, Walworth, "infantile cholera (3 days)." The deaths from typhus and common fever were rather fewer than in previous weeks.

Births.—The births of 798 boys and 765 girls, 1563 children, were registered. Average, 1349.

Meteorology.—The mean height of the barometer in the week was 29·840 in. The mean temperature of the air was 60·1°, which is 1·9° below the average of the same week in 38 years. The highest temperature in the week was 77·6° on Tuesday; and the lowest was 48·0° on Thursday, when the range of temperature was 23·5°. The mean dew-point temperature was 54·7°, and the difference between this and the mean air temperature was 5·4°. The mean temperature of the water of the Thames was 63·4°; its temperature ranged from 62·2° to 64·7°. Wind south-west. Rain 0·33 in. Horizontal movement of air 685 miles; electricity positive, with weak tension.

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	1	6	3	8	7	6
North	490,396	5	6	4	8	18	11
Central ..	393,256	1	5	9	5	10	7
East.....	485,522	..	5	8	8	17	16
South	616,635	1	23	8	15	10	5
Total..	2,362,236	8	45	32	44	62	45

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, July* 19, 1856.

Causes of Death.	In the Week ending Saturday, July 19, 1856. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 60·1						° 63·0
All Causes	1018	543	149	134	152	40	1031·8
Specified Causes	1013	538	149	134	152	40	1024·6
Diseases:—							
1. Zymotic Class	273	226	17	17	9	2	324·0
2. Dropsy, Cancer, and others of uncertain seat	44	7	7	14	11	5	44·7
3. Tubercular Class	195	80	76	30	9	..	198·8
4. Of Brain, Nerves, etc. ..	90	44	7	14	21	4	106·7
5. Of Heart, etc.	43	9	8	11	13	2	34·7
6. Of Respiratory Organs ..	106	59	10	8	22	7	91·5
7. Of Digestive Organs ..	79	30	8	19	21	1	63·4
8. Of Kidneys, etc.	13	2	1	4	4	2	13·6
9. Of Uterus; viz. — Puerperal Disease, etc. ..	6	..	4	1	1	..	8·9
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	9	3	3	2	1	..	8·3
11. Of Skin, etc.	4	2	..	2	..	..	2·0
12. Malformations	2	2	..	..	..	..	3·7
13. Debility from Premature Birth, etc.	25	25	..	..	..	..	28·2
14. Atrophy	33	26	..	1	6	..	31·9
15. Age	45	..	..	..	28	17	33·6
16. Sudden	1	..	..	..	1	..	6·0
17. Violence, Privation, etc...	45	21	8	11	5	..	24·6
Causes not specified.. ..	5	5	..	..	..	..	7·2

Deaths in Public Institutions for the Week ending July 19:—

	Males.	Females.	Total.
Workhouses	40	55	95
Prisons	2	1	3
Military and Naval Asylums ..	5	..	5
General Hospitals	41	20	61
Hospitals for Special Diseases ..	5	6	11
Lying-in Hospitals	..	1	1
Military and Naval Hospitals ..	8	..	8
Hospitals for Foreigners, etc. ..	..	..	..
Lunatic Asylums	1	3	4

BOOKS RECEIVED.

An Exposition of the Signs and Symptoms of Pregnancy. By W. F. Montgomery, M.D. Second Edition. London: Longman and Co. 1856.

Chemistry, Theoretical, Practical, and Analytical, as applied and relating to the Arts and Manufactures. By Dr. Sheridan Muspratt. Part XXIV.

The London Sewerage Question. By G. R. Booth. London: W. E. Painter.

Clinical Observations on the Symptoms and Treatment of Consumption. By Thomas L. Monahan, M.D. Dublin: Fannin and Co. 1856.

A Complete Guide to Government Appointments and to the Civil Service Examination. By James C. Hurst. London: Relfe. 1856.

TO CORRESPONDENTS.

Mr. William Travers.—The subjects for the examination in November next have not yet been fixed.

Dr. Pincoff's wishes will be attended to.

Mr. D. Thompson.—The treatment of neuralgia is unfortunately very difficult, but this difficulty does not constitute a reason for having recourse to quackery.

Dr. Gordon's Reports will be acceptable.

An Apprentice.—The lectures on Botany at the Apothecaries' Garden at Chelsea have been discontinued for the last two seasons. The usual Lectures on Comparative Anatomy will not be delivered this year at the College of Surgeons.

A Union Surgeon.—The Poor-law Board considers that it has no power to interfere in the management of parishes which are governed by local Acts, except under special circumstances.

Medicus.—Our Correspondent has forgotten to send us his name, and under any circumstances we must decline to insert any more controversial letters on the late trial of William Palmer, in which the Medical points are almost exhausted. A difficulty seems to attend the compliance with our invitation to the Medical witnesses on both sides, to examine the whole question of poisoning by strychnia in a candid and impartial manner, for we have not yet received any satisfactory response.

The following Lectures are in course of publication:—Mr. Toynbee on the Diseases of the Ear; Dr. Ranking on a Case of Intestinal Obstruction; Mr. W. Adams on Orthopædic Surgery; Dr. Peacock on the Varieties of Continued Fevers.

Mr. Gramshaw's Paper on Dropsy of the Amnion, and *Mr. J. J. Fox's* Communication on the Mortality of the Metropolis, will certainly appear next week.

COMMUNICATIONS have been received from—

Dr. Andrew Smith; Mr. Henry Squire; Mr. James Long; Mr. Hilton Mr. J. J. Fox; Dr. B.; R. G.; Mr. W. Travers; Mr. W. Parker; Mr. Nathaniel Ward; A Sufferer; Mr. D. Thompson; An Apprentice; A Union Surgeon; Dr. Pincoffs; Dr. C. A. Gordon; Mr. Richard Dover; Medicus; The Royal College of Physicians; The Society of Apothecaries; A Subscriber; Dr. H. Davis; Dr. Barnes.

APPOINTMENTS FOR THE WEEK.

July 26. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

28. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

29. *Tuesday.*

Operations at Guy's, 1 p.m.

30. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

31. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

August 1. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

Brompton Hospital, 4 p.m.: Dr. Scott Alison, "On the Heart, and the Sphygmoscope."

ORIGINAL LECTURES.

A CLINICAL LECTURE
ON
OBSTRUCTION OF THE BOWELS.

DELIVERED AT

The Norfolk and Norwich Hospital.

By W. H. RANKING, M.D. Cantab.

The recent occurrence of two cases of fatal intestinal obstruction, one in my own practice in this Hospital, affords me an opportunity of offering you some instructions on a class of cases which are among the most formidable the Physician is called upon to treat, whether they be considered in reference to their fatality, or to the obscurity which envelopes the appreciation of their particular causes, and which too often baffles the most practised skill in diagnosis.

The due discharge from the bowels of the excrementitious portions of the food is a function of so much importance, that its derangements are known to be the frequent foundation of a variety of ailments, while its total cessation is sooner or later invariably followed by death. Where, however, what may be termed natural torpor of the bowels ends and morbid constipation begins cannot be arbitrarily determined, as the utmost diversity in this respect exists among different individuals; in fact, a degree of intestinal inaction which would be alarming in one person might be a natural and healthy state in another. Thus we have records of cases in which the bowels have only acted for a series of years once in the week, fortnight, month and even once only in the year. But as a general rule it may be considered that where the bowels have not been relieved for a week, a condition exists incompatible with health, and if this be accompanied by any of the symptoms presently to be mentioned, we may consider that we have to deal with a case at least of severe constipation if not of absolute obstruction of the bowels.

The case which forms the basis of these remarks shows among other points of interest, how difficult it is in some instances to fix upon the exact starting point of the dangerous and ultimately fatal symptoms of obstruction; for as you will see, there is evidence of long-existing disease of the coats of the bowel, which we can scarcely consider to have undergone any sudden aggravation, and yet these symptoms appeared to have supervened as suddenly as if the obstructing cause had been of instantaneous formation.

Robert Giles, aged 64, following the occupation of porter, but formerly in better circumstances, had complained of frequently recurring pain in the right groin with occasional coincident attacks of diarrhœa. On a particular occasion, about a week before admission into this Hospital, this pain attacked him more severely than usual, and he found that this time he got no relief from his bowels; this led him to seek advice, which he did in the first instance from a Surgeon in the city, under whose direction he took unavailingly various purgatives and had repeated enemata.

On the 2nd November he was admitted into our wards in the following state:—There had been no motion for a week. There was no vomiting; the pulse was 80, the skin cool, the countenance pinched and anxious, and he complained of pain in the abdomen especially in the right groin. The tongue was moist and furred, the abdomen universally tense and resonant. There was no hernia in the usual localities, neither could any tumor or circumscribed fullness be detected in the abdomen. The urine was copious and natural in appearance.

The treatment at once adopted was to place him in a warm bath, and when immersed to exhibit an enema. The report of our House Surgeon was, that the tube passed readily and two pints were easily injected, but returned untinged with fæces. Ten grains of calomel were then given, and repeated after an interval of eight hours, and an effervescing draught containing tartrate of soda was given every four hours. These remedies were likewise ineffectual, and as I now considered the impediment to be mechanical, purgatives were suspended in favour of calomel and opium, with repeated injections containing ox-gall.

Two days elapsed without any relief, but the patient expressed himself as more comfortable since the omission of purgatives. His strength was sustained by beef-tea and brandy, of which, however, he took but little. The abdomen gradually became more tympanitic and the pulse rose in frequency, but still there was no vomiting. The report now is, that a tube can be passed ten or twelve inches and that two pints or more fluid could be injected. On the 8th, the rectum was examined by Mr. Nichols; nothing was reached by the finger except what appeared to be hardened fæces, and under the forlorn hope that impacted bowel might be the cause of the obstruction, two drops of croton oil were given and injections were also exhibited, but again uselessly. Now, for the first time, there was slight vomiting, evidently caused by the oil. On the 11th, a second examination of the bowel was made by Mr. Nichols. Nothing now was within reach of the finger, but on passing a bougie it became evident that the seat of obstruction was at the promontory of the sacrum, as with some force the bougie was made to pass this point and returned tinged with fæces. The attempt was now made unavailingly to introduce the tube of a stomach pump, but by removing the inside of one of the flexible rectum bougies, fluid was injected beyond the point of obstruction. Nothing resulted from this, and next day it was too evident that sinking had commenced; and in a few hours the patient died.

Post Mortem.—Body emaciated. On opening the abdomen, a large quantity of gas escaped from the peritoneal cavity. The lungs and heart were healthy. Large coils of intestines presented themselves, but they were not materially congested except at one spot near the caput cœci, where the bowel was evidently gangrenous, and exhibited a pin-hole perforation, through which air, but no fæces had escaped into the peritoneal cavity. There was no fluid effusion or other sign of general peritonitis. On tracing the distended colon the cause of the obstruction was seen to be seated in the upper part of the rectum, on a level with the top of the sacrum. At this point the bowel was contracted so as with difficulty to admit a full sized catheter. The strictured part was condensed and thickened, and apparently resulted from the gradual contraction of an old ulceration. Above and below the narrowest point, the mucous membrane was eroded and elevated into mamillary projections.

The above is a case of more than common interest, as one of a class of diseases of surpassing difficulty as regards differential diagnosis; and of so great fatality that seven out of nine cases have died. The points most worthy of consideration are the character and sequence of the symptoms, the nature of the obstructing cause, and the treatment. You will observe that the man had been ailing for several months, and had complained during the whole time of abdominal pain, which he referred to a particular spot, and that the exacerbations of pain were accompanied by looseness of the bowels. He had never been liable to constipation. Now, what inference may be drawn from this history? None, perhaps, of any value prior to the occurrence of the fatal symptoms of obstruction; for before this the attacks might be regarded as simple colicky diarrhœa, which, in a man obliged to work for his daily living, would attract but little attention; but taken as a part of the antecedents of the case, in connexion with the occurrence of obstruction, these attacks become significant as affording some, though a slight clue only, to the nature of the impediment. It may, in fact, be reasonably surmised from this history of prior disease, that the symptoms were produced by some disease of the interior of the bowel producing contraction of its calibre, such as simple or cancerous ulceration. This was the opinion I formed from the first, not merely from the history, but from the actual symptoms, and I will tell you why:—In the first place, they were gradual in their development, and not for many days of an urgent character;—then there was no constant vomiting, soon becoming stercoraceous, a symptom so general when a healthy bowel becomes suddenly strangulated, as in internal hernia, or intussusceptio. It is, in fact, usually, but not always, found, that when the occluding process is gradual, the symptoms are not of so tumultuous a character.

But although we were in a position to predict with tolerable confidence that the obstruction depended upon disease of the coats of the bowel, we had still a most difficult question to determine, viz.: Where is the point of obstruction? Is it in the small or large intestine, and in what part? This is not a question of mere scientific curiosity, but it is one of vital importance if the *ultima ratio* of opening the bowel should be contemplated. In the present case we were unable to determine this question with any degree of certainty until the day before

death. That the impediment was not in the small intestines was to be inferred from the fact that there was little or no vomiting, and also that there was a plentiful secretion of urine. All we could say then was, that grounds existed for the belief that the constriction was somewhere in the large bowel. But where? Was it in the caput cœci, transverse colon, sigmoid flexure, or rectum? Here was our grand difficulty; but it was a very important point to decide, because had it been beyond the sigmoid flexure, no good could arise from one of the operations to which I shall presently allude, and which you have seen performed unavailingly, for this very reason, in a subsequent case. I confess to a complete uncertainty on this point until the day before death, and this uncertainty arose from the circumstance that I had always a report as to the facility with which a tube passed even as far as eight or ten inches, and as to the amount of injection it was possible to introduce. This information might fairly lead to the conclusion, that the impediment was not in the rectum, and yet, as you know, there it really was. I was further deceived when Mr. Nichols was unable to reach any stricture on his first examination, and it was only on seeing him pass a bougie on the 11th, that I felt confident that the disease was in the rectum, though beyond digital examination.

You observe, then, that from the history of the existence of prior disease in the intestines, and from the comparatively mild character of the symptoms at first, we were able to come to the conclusion, which proved correct, that the obstructing cause was due to contraction of the calibre of the bowels, and that it was situated low in the large intestine. But though a correct diagnosis was formed in the present instance upon these premises, you might in many other cases reason in the same way, and be widely wrong, for an analysis of a large number of cases of obstruction will show, that there is nothing like universal correspondence between the symptoms and the nature and seat of the lesion. Cases of simple and gradual fæcal impaction have been known to prove fatal in two or three days, and to be attended by urgent vomiting from the first; while, on the other hand, some instances are on record in which sudden and complete internal strangulation has progressed throughout without vomiting, and with little pain, and such cases are sufficiently numerous to warrant Mr. Phillips in remarking, "that the diagnosis of the nature and seat of an obstruction (intestinal) is, in most cases, most uncertain and unsatisfactory.

A few words now on the treatment pursued in this case. When the patient first applied for relief, an attendant gave him purgatives of increasing power, such as castor oil, colocynth, and calomel, senna and salts, and croton oil, and he also sedulously administered enemata. This was in every respect advisable treatment, and would naturally form the initiative in the management of most cases of obstruction. When admitted, in addition to a warm bath and enemata, he had two ten-grain doses of calomel. Now, under ordinary circumstances, knowing that purgatives had been fairly, but unavailingly, tried for three or four days, I should not have resumed them, but pending the uncertainty of the cause of obstruction, which, for all I knew to the contrary, might still be fæcal impaction, and encouraged by the comparatively calm condition of the patient, absence of vomiting, and abdominal tenderness, I determined for myself to try the effect of a purgative which, if it did not go through him, would do less harm than some others, such as croton oil. No result, as you know, followed this medicine, and, therefore, falling back upon the opinion that the impediment was mechanical, I contented myself with the resort to repeated enemata, combined with calomel and opium. This is, I believe, the most rational course to be followed in such cases, for if the impediment be mechanical, as you may fairly conclude it to be after resisting a judicious exhibition of purgatives for two or three days, a continuance of such medicines not only is useless, but positively mischievous; and the only safe proceeding will be to support the strength, and to give opium, with or without calomel. Sometimes relief is obtained even at the eleventh hour by thus temporising; the calming of the peristaltic action diminishes the calibre of the bowel, and it may thus slip out of the constricting noose; or the intussuscepted portion may slough away, and restore the continuity of the bowel. How fatal in either case would it be to continue to goad the intestine by violent purgatives.

It is sufficiently obvious from the post-mortem appearances that this case must have inevitably proved fatal under every form of medicinal treatment whatever. There was an almost impervious stricture of the bowel, so rigid that after death a good sized catheter could scarcely be made to pass it; but it is equally clear that had the exact seat of the obstruction been known before the ulterior changes in the coats of the intestines above the stricture occurred, the patient might have had a chance of life afforded him by Amussat's operation of opening the colon in the left loin; but this must have been very soon after his coming under my care, as it is probable that the gangrenous condition of the cœcum had its origin within a day or two of admission, if, indeed, it had not commenced still earlier.

I have thus, I think, brought before you all the points in this individual case which are deserving of notice, but the subject is one of so much interest, that I shall conclude this lecture with some observations on intestinal obstructions in general.

The various forms of intestinal obstruction may be conveniently arranged under the following heads:—

1. Simple enteritis.
2. Impaction by fæces, or other solid formations.
3. Narrowing of the canal from disease within the bowel.
4. Pressure of tumours external to the bowel.
5. Displacement of a portion of the bowel, causing it to twist itself upon another portion.
6. Incarceration of a portion of bowel in a loop, formed by false membrane, or adhesions, or in some abnormal opening.
7. Invagination or intussusceptio.

1. Simple enteritis, or inflammation of the bowels, is usually, but not always, attended by constipation, which purgatives, if given in ignorance of the true nature of the case, fail to overcome. In this case the obstruction is due to the inability of the inflamed bowel to propel its contents; it allows itself to become distended. The transition from inflamed to healthy bowel is in some of these instances very marked, the upper portion being distended, congested, and even gangrenous, while the lower portion is abruptly pale, empty, and contracted.

2. The usual cause of obstruction from impaction is by the presence of hardened fæces, but in some instances concretions of other kinds take place, and complete obstruction has been known to be caused by a large gall-stone. Dr. Watson relates such a case in his lectures.

3. Narrowing of the bowel from internal disease is the result either of chronic inflammation, with ulceration and interstitial deposit, or of cancerous degeneration of the coats of the bowel. Giles's is an instance of the former disease. The stricture thus induced, may occur in any part of the intestinal tract, but is most commonly found in the rectum, and within reach. This is specially the case with reference to cancer, for of 378 fatal cases from this cause, in 221 the disease was located in the lower bowel.

4. Obstruction from tumours pressing on the bowel from without is comparatively rare, but cases are recorded in which such a result has been induced by large malignant tumours, and by a retroverted uterus.

5. Strangulation from simple twisting of the bowel upon itself is also rare, but several cases are on record. I have myself met with two marked instances, one of which I related some years ago to the Pathological Society; the other has recently occurred. In both the descending colon had turned over upon itself, producing fatal obstruction. Two cases are also related by Mr. Mackenzie in the *Medical Gazette*, in which the colon was similarly dislocated. Now and then, also, an analogous displacement takes place in the small intestine, in consequence of a preternaturally deep mesentery.

6. The sixth variety of internal strangulation of the bowel is more common. It has occurred to me to see several cases, and an instance you lately witnessed in this Hospital was one. The more common appearances found are a band of false membrane, the result of some former attack of partial peritonitis; an adhesion of the free extremity of the appendix vermiformis, giving rise to a nooze through which the bowel slips; or a rent or congenital fissure in the mesentery or diaphragm.

7. The last form to be mentioned is intussusceptio. In this case one portion of the bowel slips into the portion below it, as may be imitated in the finger of a glove. The portion thus inverted is sometimes of considerable length, and when it gives rise to a tumour perceptible through the abdominal parietes it is called a volvulus.

There is a great difference in the relative frequency of these several causes of intestinal obstruction, as may be seen in an

analysis made by Mr. Philips in an admirable paper published in the 31st volume of the Medico-Chirurgical Transactions. He has here collected 169 cases, and of these, 69 were instances of invagination or intussusceptio; 60 of strangulation by the constriction of bands, adhesions, and abnormal openings; while 19 only were caused by disease of the coats of the bowel; 11 by impaction of hardened fæces or concretions; and 16 from the pressure of tumours external to the bowel.

Whatever be the cause which offers impediment to defecation, a certain train of symptoms sooner or later ensue, though it must be added they do not follow any regular gradation or combination peculiar to individual lesions; hence the difficulty I have spoken of in deciding upon the exact seat and nature of intestinal obstruction. The first thing that usually attracts attention is pain; this is or is not accompanied by vomiting, and it is found on inquiry that from a certain date there has been no action of the bowels. Day after day passes without relief being obtained; and the symptoms become more severe, the pain more constant, the vomiting more urgent and eventually stercoraceous; the abdomen also becomes more and more distended, the pulse quickens, the countenance becomes haggard, and in fatal cases sooner or later symptoms of collapse ensue, and the patient sinks, retaining his mental faculties to the last. This is a description of an average case of ileus; but great variation is manifested in particular cases in the relative urgency of the several symptoms and in their grouping. I will briefly consider these symptoms *seriâtim*, and first of the pain.

This symptom is usually present in greater or less intensity, but in some few it is very unimportant, and cases may prove fatal in which there is neither spontaneous pain, nor great tenderness on pressure of the abdomen. In other cases it is the first symptom which excites alarm, and occurs often during some exertion, or after an indigestible meal. In such instances it is not uncommonly found that a portion of bowel has become strangulated, and the sudden pain would seem to indicate the precise moment in which the bowel has become imprisoned. In other cases there is little or no pain for some days, but it soon declares itself in connexion with distension of the abdomen, and marks the occurrence and progress of the enteritis, which seldom fails to add to the fatal tendency of the mechanical obstruction. Towards the close of life, when gangrene ensues, the pain, as in idiopathic peritoneal inflammation, often quickly and entirely subsides.

The *constipation* is, in all cases of genuine obstruction of the bowels, complete; or if any fæcal matter passes, it is merely that contained in the bowel below the constricted point. In some cases of intussusceptio, bloody mucus passes, which, in children especially, will materially assist in forming a differential diagnosis.

The *vomiting* is a symptom subject to much variety. I have recently had a case under my care in which the obstruction was of fourteen days' duration, with immense distension, but vomiting did not once occur. This case proved fatal without the patient once vomiting. The obstruction was in the sigmoid flexure. For the most part, however, vomiting is a very distressing symptom, and adds materially to the difficulties of medicinal treatment. At first it is simply the ejection of the ordinary contents of the stomach, but at some variable intervals it becomes fæcal.

The *abdominal distension* likewise varies both in degree and period of occurrence. In some cases, where the obstruction is high up, as in the duodenum, there is little or no distension; on the contrary the abdomen becomes flat or even retracted. Generally a tympanitic condition soon declares itself, and may proceed to an enormous extent, so that distended coils of intestine become perceptible to the naked eye.

The condition of the urine is thought by many, and especially by Dr. Barlow, to give important evidence as to the site of the impediment. Where it is copious it is supposed to indicate obstruction of the lower end of the tube, and the reverse when it is scanty in quantity. Further inquiries are, however, requisite to establish this as a trustworthy symptom. The state of the circulation in intestinal obstruction fluctuates. The pulse may be unaffected at first, but rarely fails to sympathise with the gravity of the disease, in a rise of frequency and subsequent loss of power.

You will see, then, from what I have said that there is considerable diversity in the symptoms of intestinal obstruction; it may be added that this diversity is not limited to a diversity of intestinal lesions, but that the same lesion may in a series of cases manifest an equal discordance. Hence the extreme difficulty of determining in many cases both the nature and the seat of the obstruction; but this fact will be most forcibly impressed on your minds by reading to you the remarks of Mr. Philips, who, in reference to the possibility of correct diagnosis, has analysed a large number of cases. He says:—"The impression which must be produced by reading the preceding cases is this—that, no matter what may be the cause of the obstruction, no remarkable difference is observed in the more prominent symptoms by which it is accompanied. There are in all abdominal pain, tension, constipation, and sickness; but in the mode of their occurrence it would be difficult to point out any distinct difference.

"The constipation may have the same characters, whether the obstruction be caused by hardened fæces, by contraction depending upon ulceration or other disease, or by bands or tumours—this is certain. The same may be said of sickness: it is usually distressing and ends in fæcal vomiting, but it may be as obstinate in a case of invagination, as in a case of tight strangulation by bands, &c."

This opinion is very disheartening, but it is nevertheless true; and indeed you have so recently had an instance of its correctness in the case under one of my colleagues, that no more is required to convince you of the uncertainty in the differential diagnosis of these cases. Still it may be asked, are there not some broad landmarks, so to speak, by which we may arrive at an approximative diagnosis? I should answer in the affirmative, and tell you what they are, and how far they may be made available.

In reference, then, to the nature of the obstruction, I would say that where there is sudden pain and vomiting with complete constipation in a person previously healthy, and where the vomiting is an urgent symptom and the pulse quickly sympathises with the general disturbance, we are justified in presuming (in the absence of external hernia) that the cause is either intussusceptio or an internal strangulation the result of the intrusion of a portion of bowel into some abnormal opening in the mesentery, or into a noose produced by a band of false membrane. In such a case our presumption would be strengthened if there was the history of former attacks of partial peritonitis likely to have produced false membranes. This, however, is all we can say. Between intussusceptio and strangulation by bands, I know of no means of deciding, unless the occurrence of bloody stools be considered sufficient. In relative frequency of occurrence in a given number of cases they are nearly equal.

On the other hand, when we have the history of prior disease of the bowels; one or more attacks of constipation overcome with more or less difficulty; when the symptoms so to say, do not explode with so much violence, but are more gradual in their accession, we should lean to the conviction that the cause is one which has produced gradual narrowing of the bowel, such as cancerous or other disease of its coats, or pressure by a gradually increasing external tumour. Now, reasoning thus we should perhaps be right in many cases, but you are bound to know that in many also we should be quite wrong, so that in every instance the diagnosis of a case of obstruction cannot be approached with too much diffidence and caution.

As with regard to the cause of obstruction, so with reference also to its seat. Where you have actual tactile evidence of an obstruction, as in a stricture of the rectum within reach, there can be little difficulty in deciding the point; but where no such evidence exists, the question becomes one of the most difficult which can offer itself. We have to ask, is the obstruction in the large or the small intestines, and in which part? Now, taken in reference to the question of operation, the right decision is everything; we may save or prolong life, or we may uselessly perform a dangerous operation, as you have recently seen, accordingly as we interpret the evidence before us correctly or the reverse. The only help I can give you in this difficulty, and it is very small and liable to numerous exceptions, is founded on the following considerations:—"If we find a circumscribed tumour in any part of the abdomen, we may perhaps correctly draw the inference that there is the seat of obstruction; but we shall still hesitate between small and large bowel, volvulus and impacted fæces. If a flexible tube passes ten or twelve inches into the bowel, and a considerable quantity of fluid can be injected without returning, it will perhaps be judged that there is at least no obstruction within the descending and transverse colon; but

even here a fallacy may exist and did exist in the case of Giles; the tube may appear to pass, but in reality double upon itself in the rectum, or even it might have passed through in his case, as the stricture was not absolutely impervious, and thus be the very means of leading us astray. Again it might be supposed that some assistance could be derived from observing the course of the coils of intestine when these are visible through the abdominal parietes. For instance, if a marked prominence with tympanitic resonance existed transversely across the abdomen and appeared to descend into the left loin, any one would be justified in pronouncing that there was a distended colon and that the constriction must be below this. Yet how fallacious any deduction drawn on such premises may be was shown in Dr. Copeman's case. Here, as you may remember, there was precisely this transverse prominence thought by many to be the colon; and yet it turned out to be not the colon at all, which was empty, but several distended coils of small intestines.

Among other supposed data for the localization of the seat of obstruction I may mention the early occurrence and urgency of the vomiting when the constriction is in the small intestines, the scantiness of urine under the same circumstances, and the sensation of the patient of a passage of air up to a certain point and no further, and of enemata up to the same point in the opposite direction. All these may be occasionally of use, especially the latter, when present; but the exceptions are so numerous, that at best but a limited amount of confidence can be placed in them.

With reference to the treatment of intestinal obstructions in general, so much has been said when speaking of the course pursued in the case of Giles, that but little need be added.

Before any measures whatever are adopted, examine the usual seats of external hernia, the inguinal canal, the femoral spaces, and in females the vagina; the rectum should also be examined carefully.

In the majority of cases, when seen early, constipation is the prominent symptom and the one which the patient is most urgent to have relieved. Purgatives may then form the initiative treatment in almost every case, and may be continued for two or three days, but not longer, as, should they fail after so long a trial, you may feel assured that the obstruction is such as they will not overcome, and is probably mechanical. Once that this conviction is justified, purgatives should be abolished, and other measures adopted of a temporizing nature. Injections carefully given may be continued, and should be given with a tube passed as far as can be accomplished. Colomel and opium, one grain of each, may also be given every two or three hours, or opium alone. If the patient is robust and there is marked abdominal tenderness, blood may be taken from the arm or leeches applied to the abdomen. The strength will require sustaining as well as the vomiting will permit, and after a few days, the exhibition of stimulus and opium comprises nearly or quite all that can be done internally. But if the case progresses unfavourably in spite of everything, what is the next step? is the patient to be allowed to die, or are we to endeavour to save or prolong his life by operation? This is a question very difficult of decision, on account of the uncertainty of the exact seat of obstruction; and without a tolerable assurance of this point, to open the bowel will be to add one more element of fatality to those already existing. It is clear, then, that before contemplating operative interference every precaution to ensure a correct diagnosis must be taken; should this fail to enlighten us as to the precise point of obstruction, I do not think any operation is to be countenanced; but if we are certified that the constriction is at a point above which the bowel can be safely opened, we have then to decide which of the several proceedings is to be adopted.

The operations usually performed are three: first, that which is called Amussat's or Callisen's operation, and consists in opening the colon in the loin. Second, that which has received the name of Littré's operation, in which the bowel is opened in one or other groin; and, third, in which an exploratory incision is made into the abdomen for the purpose of searching for the seat of obstruction. This latter I shall dismiss with a very few words, as I should not consider it justifiable in any case, and in this opinion I am born out by practical results, as well as by the opinion of the most competent surgical authorities. But the other operations have been performed with success so frequently, that the Physician would not be justified in excluding their consideration, provided always that the exact locality of the obstruction is known, as for instance in a tangible stricture of the rectum; or is indicated with tolerable certainty by circumstantial evidence. Where this evidence is wanting, the feasibility of the operation is certainly very problematical, and as this evidence is seen in the majority of cases to be of an unsatisfactory nature, the number of instances in which it can be performed with anything like confidence must neeessarily be small. But supposing a case in which all the particulars requisite to form a correct differential diagnosis are present, and in which ordinary treatment is unavailing, it would be strictly in accordance with the results of a carefully recorded experience, to suggest that the Surgeon should endeavour to effect what internal medicines are incompetent to accomplish. The only question would be, which operation is the most advisable, and when it ought to be performed. The reply to the latter question is easy; it should be as soon as possible after the obstruction is ascertained to be mechanical. You can easily conceive, that if it be delayed until the bowels have become inflamed if not absolutely gangrenous—if, in fact, it be performed only when life is fast ebbing away, it necessarily carries with it the element of failure.

As to which operation is to be preferred, whether that of opening the colon in the left or right loin, or in the corresponding inguinal region, much must depend upon circumstances. There is perhaps less fear of exciting peritoneal inflammation in the former than in the latter mode of establishing an artificial anus; but on the other hand there is no comparison between the two as regards the convenience and comfort of the patient. If the opening be in the loin, not only is there more difficulty in keeping on the pad which is required to prevent the continual escape of gas and fæces, but the help of an assistant is necessary. Whereas, when the opening is in the inguinal region, the patient can wait upon himself, and thus hide from observation a most disgusting infirmity. It would be foreign to my purpose to describe to you the modes of performing the operation for artificial anus. On this head I must refer you to your surgical instructors.

A COURSE OF LECTURES

ON THE

NATURE AND TREATMENT OF THE DISEASES OF THE EAR.

DELIVERED AT

St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.,

Aural Surgeon to the Hospital, and Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

(Reported by JAMES HINTON, Esq.)

Lecture IV.

EXTERNAL MEATUS—FOREIGN BODIES.

Gentlemen,—The most common affection to which the external meatus is subject is a collection of cerumen or epidermis which fills the whole or a portion of the tube. Next in frequency is a catarrh of the dermis, in which disease the dermis pours out a milky secretion instead of secreting the natural epidermis. The following is the result of the dissection of the external meatus in 1013 diseased ears:—

Containing a collection of cerumen	71
Containing a collection of cerumen and epidermis	9
Distended and dilated by a collection of cerumen	5
Distended and dilated by a collection of cerumen and epidermis	1
Containing a collection of cerumen and rye-seeds	2
Containing a collection of cerumen; the osseous walls being absorbed in parts	3
Containing a collection of cerumen and epidermis, the osseous walls being absorbed in parts	4
Containing a collection of cerumen; the osseous walls being absorbed in parts so as to expose the cavity of the mastoid cells	1
Containing a collection of hairs	1
Containing a collection of cotton wool	1

Containing a molluscous tumour	5
Containing a molluscous tumour; the osseous walls being absorbed in parts	3
Containing a molluscous tumour which projects through the bone into the cerebral cavity	1
Containing a molluscous tumour which projects into the mastoid cells	1
Containing a collection of pus	10
Containing a collection of pus mixed with epidermis	1
Having polypi growing from its walls	1
Having polypi growing from its walls, the bone being carious	1
The dermoid layer so much atrophied as to leave the bone denuded	2
The dermoid layer hypertrophied	2
The dermoid layer congested	7
The dermoid layer soft	1
The dermoid layer soft and red	2
The dermoid layer soft and detached from the bone	2
The dermoid layer soft and thick, the bone being carious	1
The dermoid layer ulcerated, the bone being carious	1
Osseous walls rough	1
Osseous walls carious	7
Osseous walls absorbed in parts	2
Osseous walls presented an orifice superiorly	3
Osseous walls presented an orifice inferiorly	1
Osseous canal much contracted	3
Having bony growths from the osseous walls; canal much contracted	14

The diameter of the external meatus varies much. In some adults it is so large as to admit the introduction into it of the end of the little finger for a considerable distance, and the membrana tympani may be seen by means of the ordinary daylight without the lobe being drawn back. In other persons the meatus is so small that it will scarcely admit a common goose quill. The large size of the meatus depends upon the original conformation of the bony tube, but its narrowed state is often either the result of osseous development, of a thickened condition of the dermis, or the presence of bony tumours.

Foreign Bodies in the Meatus.—Foreign bodies of various kinds are frequently introduced into the outer meatus. Among those which have fallen under my own notice may be named beads, slate pencil, leaves, a shell, a pea, sealing-wax, a percussion-cap, a pen, a piece of paper, seeds of grass, tobacco, wool, cotton wool, human hairs, bacon, lint, camel's hair pencil, and camel's hair. When a body is introduced into the meatus by design, it is either done by a child in play, or by an adult for the purpose of Medical treatment, or the alleviation of an itching of the tube. When a patient is suspected of having a foreign body in the ear, the first step of the Surgeon is to make a careful inspection of the tube with the speculum and the lamp, or in sunlight, with the view of ascertaining whether there is really anything present. In a great number of cases, having explored the whole of the meatus and seen the membrana tympani, he will be able to assure the patient or the friends that there is no foreign body present. For want of this precaution lives have been destroyed in the attempt to extract from the ear supposititious foreign bodies which were never present. Medical men are not generally aware with what impunity a foreign body may be lodged in the meatus. It is not uncommon to find a mass of hard cerumen in contact with the whole of the meatus and with the outer surface of the membrana tympani, without causing any pain or inflammation; I have frequently removed other substances, viz., beads, pebbles, etc., which had been either in contact with the membrana tympani or in its immediate vicinity without their having caused any pain. Nor is this remarkable when we remember that the meatus and outer surface of the membrana tympani are a continuation of the outer skin, and, like it, covered with a layer of epidermis. The meatus and membrana tympani are extremely sensitive when touched by hard or rough substances, but smooth and soft bodies may be gently pressed against them without causing pain. Thus the artificial membrana tympani, made of vulcanized india-rubber, is often placed against the outer surface of a perforated membrana tympani, without causing any unpleasant sensation.

When a foreign body has been detected in the external meatus, it should be removed as soon as possible. The mode of doing this depends upon its nature. As a general rule, the syringe and warm water are quite sufficient to remove all rounded solid bodies. I have succeeded in getting out beads and other hard substances, which appeared to be impacted in the meatus, by means of the syringe only, although considerable time is sometimes required. At times it may be useful to move the body slightly with the point of a probe, a little bent downwards, so as to give greater facility for the passage of the water beyond it; for the mode in which the syringe acts is to force the warm water beyond the foreign body, and so gradually to impel it outwards. Mr. Wilde and other writers recommend the use of the curette, spatula, or forceps in the extraction of foreign bodies from the meatus. I have never been obliged to use any of these instruments, and, if possible, they should be avoided. Dieffenbach, who advocated the use of a curved director or curette, must have met with cases showing their danger, for he says, "Should violent bleeding supervene, and there be no likelihood of completing the operation at one sitting, cold and afterwards warm applications are to be resorted to, so as to prevent suppuration." It is almost impossible to pass a curette between the foreign body and the meatus without forcing the former inwards, and it is very apt to be pressed *forcibly* against the membrana tympani and cause inflammation. Cases are sometimes met with in which the most lamentable results have followed attempts at removing foreign bodies by instruments. Death has not unfrequently occurred; and, where the life of the patient has been spared, the ear has been destroyed, and the *portio dura nerve* paralysed.

Supposing that a patient applies for relief, who has much inflammation and tumefaction of the meatus, consequent, perhaps, upon some attempts made to remove the body by instruments, I think the better course is to apply leeches and fomentations, under the use of which the symptoms will subside, when the extraction may be attempted by the syringe.

In some cases the presence of a foreign body in the meatus gives rise to a cough, or even to vomiting. This appears to be caused by irritation of the auricular branch of the pneumogastric nerve. A patient under my care, with a portion of dead bone in the meatus, suffered from a cough, which yielded to no treatment, but disappeared as soon as the bone was removed. In a notice of Professor Romberg's work in the *British and Foreign Medical Review*, Vol. XVII., it is stated that Arnold met with a case of chronic vomiting in a child, which long resisted all curative means, but which was cured by removing a bean from each of the child's ears.

There are substances of a different character to those I have alluded to, which are often introduced into the ear, and which are not so easily removable by the syringe. These are cotton wool, tobacco, leaves, paper, and similar soft materials, which expand in the tube, and perfectly fill it. If the syringe fails to remove these bodies, they can be seized with the lever-ring forceps, with which they can be easily withdrawn. Insects sometimes enter the meatus, and are apt to cause more irritation than the presence of solid bodies. If they touch the membrana tympani they cause extreme sensitiveness, and spasmodic contraction of the tensor tympani muscle. The use of the syringe, or, if that is not at hand, a little warm water poured into the ear, affords instant relief. Foreign bodies which press upon the outer surface of the membrana tympani are apt to force inwards the chain of bones, and to press the stapes towards the vestibule, causing the peculiarly distressing symptoms of giddiness and confusion in the head which not uncommonly attend upon an accumulation of cerumen. These are wholly removed when the foreign body is extracted.

We have not much experience upon the effect of narcotics introduced into the external auditory meatus. In one case which I shall detail to you, I have every reason to believe that the narcotic property of a piece of tobacco in the meatus was the cause of very serious cerebral derangement.

In the following case it is probable that the foreign body escaped spontaneously:—

M. S., aged 9, was brought to me by a Medical man in January, 1852. He stated that, on the previous evening, the mother of the child had seen her put a bead into the right ear; that he had seen what he supposed to be the bead, but had been unable to extract it by means of the forceps. By means of the lamp the surface of the meatus and membrana tympani were seen, and the dermis throughout was much congested, especially near the orifice, where the forceps had been applied. No foreign body was detected.

Cases of Foreign Bodies removed from the External Meatus.

Case 1. *Slate pencil.*—J. S., aged 7, was brought to me at the St. George's and St. James's Dispensary, on Nov. 28th, 1849, her mother stating that she had pushed a piece of slate pencil into the right ear. She had complained of no pain, and she had slept well. Upon examination, by means of the speculum and lamp, a rough piece of slate pencil was observed lying at the floor of the meatus, one end being apparently in contact with the membrana tympani, while the other looked towards the orifice of the meatus. The body was easily removed by the syringe and warm water; it was nearly half an inch long, and a quarter of an inch broad. The membrana tympani was red, the bloodvessels of its dermoid layer being distended. The patient did not complain of pain, and in a few days the membrana tympani was healthy.

Case 2. *Percussion cap in the Ear for fifteen years.*—C. E., aged 26, was admitted at St. Mary's Hospital in November, 1852. She said that lately she had felt somewhat deaf in both ears. Upon examination, a mass, like hardened wax, was observed near the orifice of the left meatus. It was removed by the syringe, and proved to be a percussion cap, surrounded by wax. The patient said, that she remembered, when about 11 years of age, she put a cap into her ear, but she thought it had been taken out, and had never thought of it since. The membrana tympani was concave, the Eustachian tube natural, the power of hearing was nearly gone. Right ear, hearing distance seven inches (a); membrana tympani dull, concave; Eustachian tube natural. It appears that the thickening of the right membrana tympani had recently caused a dulness of hearing in that ear; the left ear had, doubtless, been useless for some time, but, so long as the right ear remained perfect, the defect of the left ear was not observed.

Hairs are apt to collect in the meatus; they either enter in small pieces while the hair is being cut, or those growing at the orifice fall inwards. They are apt to produce great irritation.

Case 3.—W. S., aged 69, complained of an extremely unpleasant crackling in the right ear, whenever he moves the head or ear; it came on two months ago after bathing in the sea. He had a similar attack some years previously; but it subsided spontaneously. The hearing distance was three inches. A large mass of short hairs was syringed out of the ear, and the symptom of crackling disappeared at once, and the hearing distance was two feet. Another gentleman, from the same cause, had excessive itching.

Case 4.—*A pin impacted in the meatus.*—A. R., a servant, aged 35, came in great fear and in some pain, complaining, that when picking the left ear with a pin she had dropped it into the ear, and was unable to remove it. The head of the pin was seen to lie close on the membrana tympani at its lower part; the point seemed to be inserted in the membranous meatus. The use of the syringe was ineffectual, and I therefore had to remove it with the rectangular forceps, an instrument of great utility in making applications to the meatus. On attempting to withdraw the pin I found that its point was firmly fixed in the dermis, and that the only way to extricate it was to seize it by the middle, push it inwards against the membrana tympani, and then suddenly to withdraw it.

Cotton wool.—In one case a portion of cotton wool had been in the right ear for ten years without producing any other symptom than a feeling of fullness. In the following case, where it rested on the membrana tympani, symptoms similar to those of pressure on the brain were very decided:—

Case 5.—The Rev. O. M., aged 55, consulted me in 1849. Since an attack of measles, when a child, has had a discharge from the left ear; has been accustomed to push a portion of cotton wool into the meatus. Has lately suffered from giddiness and a sensation of weight on the head; his Medical men thought the head symptoms produced by derangement of the stomach, as during attacks of dyspepsia he was decidedly worse. Upon examination a considerable portion of cotton wool was observed in the meatus, in contact with the membrana tympani; it had evidently been pushed in by other portions which had been thrust upon it. The cotton was removed by means of the syringe, and was found to have closed an orifice in the membrana tympani. After the removal of the cotton the attacks of giddiness wholly subsided.

In a dissection I once found a piece of cotton wool in the meatus, where it had probably remained for many years; and it had so largely dilated the bony meatus, that the index finger could be passed in as far as the membrana tympani.

Case 6.—*A shell in the meatus; removal by instruments; rupture of the membrana tympani; paralysis of the portio dura nerve.*—Miss A., aged 14, consulted me in May, 1853, on account of complete deafness of the right ear and paralysis of the right side of the face. Her father stated that eight years previously she had in play put a small shell into the ear; that the Surgeon, in endeavouring to remove it, forced it deeper into the ear, breaking the shell and causing intense pain. After its removal there was much discharge from the ear, and in a few days the muscles of the right side of the face lost their power, which they have not regained. Upon examination there was no vestige of the membrana tympani; the mucous membrane of the tympanum was very thick and red, and there was not the slightest power of hearing.

Case 7.—*Tobacco in the meatus; pain and numbness in the head; partial stupefaction; inability to walk straight.*—M. B. S., aged 50, applied for relief in 1843. He stated that for four months he has had pain and a sensation of numbness in the right side of the head, which feelings are much aggravated at times. He also complains of giddiness, and sometimes reels across a room; at others he is obliged to sit down, feeling quite oppressed and stupefied. He has also suffered from indigestion. Upon consulting a Medical man he was treated by cupping, purgatives, etc., but without relief. Upon examination the right external meatus was found to contain a considerable quantity of black matter which was easily removed, and was found to consist of tobacco in a moist state, mixed with cerumen and wool. The next day the head symptoms were much diminished, and in a few days they wholly disappeared; the patient remained free from them. The tobacco had been introduced into the meatus a short time before the attack on account of toothache. The mass was soft, and so loosely packed that it appears probable the symptoms were caused by the narcotic properties of the tobacco rather than by its pressure on the membrana tympani; in cases of pressure the symptoms disappear at once on the removal of the body, whereas in the present instance they subsided slowly.

(a) Normal distance three feet.

ORIGINAL COMMUNICATIONS.

PRACTICAL OBSERVATIONS
ON THE TREATMENT
OF GLEET AND SPERMATORRHŒA, BY POTASSA FUSA.

By JOHN LIZARS, Esq.
Late Professor of Surgery to the Royal College of Surgeons, and Senior Operating Surgeon to the Royal Infirmary, Edinburgh.

My attention was first directed to the use of potassa fusa, as a powerful remedial agent for the cure of obstinate forms of stricture of the urethra, by the perusal of the successful issue of several very unmanageable cases treated by it, the histories of which were published by Mr. Wade. I have recorded, in the third edition of my "Practical Observations on the Treatment of Urethral Stricture," at page 229, a case in which I succeeded, by means of potassa fusa, in removing the mutilated state of the urethra, consequent on the operation of the perineal section performed in the Royal Infirmary of this city.

While the effect of the potass can in a great measure only be regarded as a powerful escharotic in destroying diseased structure in impassable instances of stricture, I was led to consider, whether in other conditions of morbid action of that canal, which resisted the usual stimulating means of cure, it might not be safely used, merely as a counter-irritant, the strength of which the Surgeon has greatly in his power to modify and control. I was induced to think it might be in this way advantageously employed in gleet and spermatorrhœa. For the last two or three years it is the remedy which I have relied on in treating these affections, and this communication contains my mode of employing the potassa fusa, and the result of my experience.

The mode of applying it is as follows:—A silver catheter

of the size of No. 12, is first inserted in the urethra onwards to the bladder, while the patient is placed on a sofa, and the instrument is allowed to remain in the urinary canal for half-an-hour. During this time the Surgeon prepares a bougie, mounted with potassa fusa. He should select a black, soft bougie, smaller than the catheter, say about 8 or 9 catheter, and cut off the point, so as to render it flat on the surface. In the flattened extremity he then makes a small circular excavation, with a spear-pointed penknife, and into this round recess he inserts a small piece of the potass, about the third of a grain, and covers it almost wholly over with the thin, circular margin of the excavated wall of the bougie, to prevent the potass falling out during its application, while in the urethra. A gentle heat favours this process.

The patient should now be requested to stand, and in that position the urine in the bladder is to be drawn off by the catheter. The catheter is then removed, when the Surgeon grasps the penis with his left hand, inserts the armed bougie with his right hand, and carries it quickly along the canal, near to the neck of the bladder, stretching gently the member at the same time. In the case of spermatorrhœa, the veru montanum or caput gallinaginis is the chief point to touch. In gleet, the bougie should sweep several times backwards and forwards, while the penis is held stretched at right angles to the body of the patient.

In gleet it would appear that the action of the potass upon the urethra in effecting a cure consists in simply removing the chronic inflammation of its mucous membrane, and operates in the same way as the nitrate of silver does when applied to the inflamed chronic condition of the eye in ophthalmia.

In spermatorrhœa it seems to subdue the irritable state of the urethral canal, especially that portion of it investing the veru montanum. In this latter affection I have used the nitrate of silver, by means of Lallemand's ingenious *porte caustique*, but gave it up, as the potass is more manageable in its application, more efficacious, and much less painful. The same applies to using the nitrate of silver in gleet. With the potassa fusa I have invariably succeeded in effecting a permanent cure.

To those patients affected with gleet who dislike the insertion of any instrument, I recommend an injection of the pernitrate of iron, beginning with half-a-drachm to six ounces of water, and progressively increasing it. It checks gleet more quickly than a solution of zinc, copper, or silver. It is beneficial to give it at the same time internally. I consider gleet to be established at the end of three months from the time of infection, or the first appearance of gonorrhœa. I only resort to the chalybeate, as the next best substitute, when I am prevented, by the prejudiced intervention of my patient, from using the potassa fusa.

Edinburgh, July 9, 1856.

[As spermatorrhœa is often an imaginary affection, we hope that no attempts will be made to burn the urethra with potassa fusa, except in some cases where this somewhat rare disease is actually proved to exist.—Ed. *Medical Times and Gazette.*]

STATISTICAL REPORT OF DEATHS

IN THE

LUNATIC DEPARTMENT OF THE NAVAL HOSPITAL AT HASLAR,

BETWEEN THE 16TH SEPTEMBER, 1853, AND THE 26TH APRIL, 1855, WITH SPECIAL REFERENCE TO THE CONDITION OF THE SPLEEN, AS FOUND ON POST-MORTEM EXAMINATION.

By JOHN WILSON, M.D., F.R.S.

Medical Inspector of Greenwich Hospital; formerly Medical Superintendent of the Lunatic Department of Haslar Hospital.

As its title implies, this Report contains all the cases of death that occurred during my superintendence. Whether the condition of the spleen therein noticed has any etiological or pathological meaning in regard to lunacy in general, I cannot tell; but, at all events, it will be admitted to be a curious coincidence, if it be nothing more.

It will be observed, that there is a slight novelty in the nomenclature employed, more especially in the substitution of the words "active" and "passive," for the more usual terms, "acute" and "chronic." I adopted this nomenclature, thinking it more accurate, soon after I took charge of the Asylum, and assigned my reasons for so doing at the time, in a report of some length, sent to the then Medical Director-General.

Name.	Age.	Cause of Death.	Form of Insanity.	Ascertained Duration of Insanity.	State of Spleen as found on Post-mortem Examination.
James Harrison.	53	Apoplexy.	Mania, active.	1 year.	Weight, 2½ ounces; very firm in texture.
William Dawes.	42	Paralysis.	Mania, passive.	18 months.	Weight, 4½ ounces; compact and firm.
R. A. Newman.	62	Paralysis.	Mania melancholica.	5 years.	Body not examined.
John Miller.	82	Apoplexy.	Mania, passive.	8 years.	Weight, 3¼ ounces; very soft in structure.
W. S. Sauders.	40	Apoplexy.	Mania, active, ending in dementia.	4 years.	Weight, 3 ounces; firm in structure.
Wm. Finigan.	76	General decay.	Mania, ending in dementia.	7 years.	Weight, 3 ounces; tough and condensed.
John M'Cann.	53	Phthisis.	Mania, active.	4 months.	Weight, 6 ounces; dense.
W. H. Martin.	37	Apoplexy.	Mania, melancholica.	11 months.	Weight, 2½ ounces; firm and compact.
James Lavis.	48	Pneumonia.	Mania, passive.	5 years.	Weight, 3¾ ounces; dense.
John M'Kay.	80	Ileus.	Mania and dementia.	42 years.	Weight, 2¼ ounces; firm.
John Stride.	74	Pneumonia.	Mania.	8 years.	Weight, 3¾ ounces; firm.
Nicholas Whyland.	75	Hydrothorax, ascites, and pneumonia.	Mania.	9 months.	Weight, 8½ ounces; not altered in texture.
Evan Evans.	72	Pneumonia.	Mania and dementia.	46 years.	Weight, 4½ ounces; structure slightly dense.
James Donaldson.	66	Pneumonia.	Mania periodica.	40 years.	Weight, 2½ ounces; soft and pulpy.
Wm. Hines.	46	General Paralysis.	Mania, active.	2 years.	Body not examined.
James Lezouza.	76	Apoplexy.	Mania, passive.	42 years.	Weight, 4¼ ounces; tough and firm.
John Wright.	70	Anasarca.	Mania, passive.	40 years.	Weight, 7½ ounces; slightly condensed.
George Barker	66	Pneumonia.	Mania periodica.	36 years.	Weight, 3½ ounces; tough and firm.
James Nicholas.	53	Pneumonia.	Mania, passive.	11 years.	Weight, 8 ounces; firm.
Noah Bird.	66	Rupture of the heart.	Mania.	41 years.	Weight, 3½ ounces; dense in structure.
John Dennis.	33	General paralysis.	Mania and dementia.	2 years.	Weight, 3½ ounces; firm.
J. W. King.	33	Paralysis and apoplexy.	Mania, active.	1 year.	Weight, 7 ounces.
Joseph Hall.	58	Anasarca.	Mania, passive.	7 years.	Weight, 2¾ ounces; firm.
Peter Hay.	67	General decay.	Mania and dementia.	8 years.	Weight, 2¾ ounces; dense.
Wm. Parsons.	44	Peritonitis.	Mania, active.	2½ years.	Weight, 6 ounces.
John Jones.	91(?)	Apoplexy.	Dementia.	3 years.	Body not examined.
B. M'Carthy.	83	General decay.	Mania and dementia.	10 years.	Small, and so soft that it could not be removed.
James Hawkius.	79	General decay.	Mania, passive.	Uncertain.	Weight, 5 ounces; firm.
Arthur Howe.	38	General paralysis.	Mania and dementia.	1½ year.	Weight, 4¾ ounces; firm.
John Davis.	61	Hydrothorax.	Mania, passive.	28 years.	Weight, 5⅓ ounces; firm.
John Laurence.	39	Pneumonia.	Mania, active.	3 years.	Weight, 7 ounces; slightly condensed.
Jas. Savage.	35	General paralysis.	Mania and dementia.	1½ year.	Weight, 7 ounces; slightly condensed.
Michael Leary.	40	General paralysis.	Mania and dementia.	5 years.	Weight, 2½ ounces; firm and dense.
John Frost.	33	Apoplexy.	Mania, active.	10 months.	Small, as soft as coagulated blood; weight could not be ascertained.
James Pratt.	67	Apoplexy.	Mania, passive.	1 year.	Weight, 3 ounces; dark and friable.
John Sullivan.	54	General paralysis.	Mania and dementia.	3 years.	Body not examined.
Mark Bradbury.	29	Apoplexy.	Mania, passive.	2½ years.	Weight, 6½ ounces; very firm.
J. H. Dare.	18	Phthisis.	Mania, active.	28 days.	Weight, 3 ounces; very firm.

LABOUR COMPLICATED WITH DROPSY OF THE AMNION.

HÆMORRHAGE AND PRESENTATION OF THE UPPER EXTREMITY.

By HENRY GRAMSHAW, M.R.C.S., Eng., L.S.A.

It is a somewhat curious coincidence that, after reading a case of dropsy of the amnion in the *Medical Times and Gazette* of May 17, I should be called to bear witness to the accuracy of the symptoms therein described, by narrating the details of the very next labour I chanced to attend.

On the afternoon of Sunday, May 18, I was sent for to Mrs. C., Union-row, Tettenhall. I had never attended her before, but she told me she had borne four children, three of whom are living; the youngest is two years and a half old, unhealthy, and not yet able to walk. Mrs. C. is about 36, fair, delicate, and evidently of a highly nervous temperament. She says her first labour was difficult. She then resided some miles from any Surgeon. The arm came first, and the child's position was not altered, but it was thrust into the world by (supposing her account accurate) spontaneous expulsion. It was a still-born infant. The last confinement was quick; she had scarcely any discharge after it; and her return to health was speedy.

During her present pregnancy she has suffered more pain than she can well describe. For some time past she has felt as if she must burst; and she tells me the skin over her stomach is so thin, that she can compare its appearance to nothing but "the whiteness over a gathering that would soon break." She did not expect to have needed my services for a fortnight to come. The mammæ have been well developed, but within the last week or two they have diminished again in size. Has never had phlegmasia dolens after any of her confinements, but says she has experienced tenderness at times in the course of the internal saphena vein of the right leg. Her husband is strong and healthy. The movements of the child have been distinctly perceptible till yesterday, and she fancies she has felt them within the last few hours, but more obscurely. I made a vaginal examination, and found the membranes protruding from the vulva. I accordingly ruptured them, and a perfect torrent poured out of a dark, coffee-coloured fluid. I am sure I have to thank Mr. Debenham, whose case was so fresh in my remembrance, for not being more astonished than I was. Some idea of the quantity may be given when I mention that four quarts of the fluid were caught in basins, and subsequently measured, added to which a considerable saturation of the bedclothes and floor took place. My patient was much excited by the occurrence, and experienced a sensation of faintness, but not to an alarming extent, attributable, as I think, to her having a bandage pinned firmly round the abdomen. I deemed it advisable to give her time to recover a little, and was disposed to wait quietly till the uterus again acted, trusting it would soon expel its contents; and there seemed no indication for active interference. In a short time, however, a slight oozing of blood commenced, and as this increased into a considerable gush, I made an examination, and found the upper extremity presenting, imbedded in clots. I proceeded to turn and deliver the child, and found some difficulty in so doing, as the shoulder had entered the brim of the pelvis, and the child's body and limbs were so slippery, from the blood on them; it was a hard matter to retain the foot when grasped. The uterus was filled with clots; the woman restless, disposed to struggle, and naturally much alarmed. The placenta followed with the child, which was dead, though recently, and there was no hæmorrhage subsequent to the complete evacuation of the uterine cavity. Two grains of opium and some brandy-and-water were administered. The bandage was readjusted, and strict injunctions given that it should be kept properly applied, and on no account suddenly loosened. During the night to take the following mixture:—

℞ Tinct. opii ♏80, vin. antim. P.T. ʒj., syr. simp. ʒss., aquæ ʒvss. ♏. Ft. mist. cap. ¼, 4tis horis.

19th.—Going on well; has passed a good night, and experiences less after-pain than is usually the case.

29th.—On visiting Mrs. Collins to-day, I find she has made a good recovery. The few days subsequent to her labour she had a little pain in the pelvic viscera, but fomentations speedily relieved it.

In reviewing the foregoing account, it is worthy of notice that whereas, in Mr. Debenham's case, the patient had only attained her sixth month, in the present one the full period of pregnancy was well-nigh accomplished; therefore, we must not too readily adopt the impression that "in dropsy of the amnion, if the uterine veins are expanded to the full, flooding to death is a necessary consequence;" certainly, Mrs. Collins did not lose "four or five gallons," which is a prodigious quantity; but the child had nearly arrived at maturity, and was by no means attenuated, as I anticipated it might be. It would be interesting to learn if, in both cases, the character of the fluid was similar, and such as I have described, viz., dark, like a decoction of oak bark, and towards the last of a grumous, treacly appearance.

Dr. Churchill, in his valuable manual, observes, "that over-distension from excess of liquor amnii involves no danger to the mother, though it certainly impairs the force of the uterus, and prolongs the first stage;" perhaps by excess we are not to understand a marked dropsical condition, otherwise I should be disposed to say danger is involved by such a state, or if not by the state *per se*, by the complications which are likely to arise out of it, and these I consider to be:—

1. The shock and faintness which may ensue from the sudden evacuation of so large a quantity of fluid.

2. The great probability that hæmorrhage will come on from the patulous condition of the vessels and the loss of contractile power which the uterine muscles may evince, highly favouring a disposition to bleeding, either of an apparent or internal character, or both.

3. Possible displacement of the child when it swims about in a bath of such unusual dimensions, which is liable to be suddenly let off, forcing down a limb in its egress, if space permits, as in my case, or carrying out with it instantly the whole uterine contents, as in that mentioned in your 447th page.

Previous to her confinement Mrs. C., as might naturally be expected, suffered greatly from spurious labour pains; indeed, she says she had been on the point of sending for me for days past. No doubt the womb had a greater load than it could readily deal with, and possibly the sufferer did require artificial assistance to evacuate the fluid and let the labour progress for some time ere she sought Medical aid; but her general sensations were so unusual she was not able to interpret them correctly, or decide if the labour had actually commenced.

The practical deductions I would draw from these cases are—

1. To puncture the membranes directly the diagnosis is clearly made out, and possibly even before the full period of pregnancy has been accomplished, if the symptoms are urgent enough to warrant such a proceeding.

2. To place a bandage round the abdomen before the evacuation of the fluid is attempted; because I believe it is of as much, if not more, importance here than when about to perform paracentesis abdominis.

3. Mr. Debenham has told us it is well to have stimulants in readiness; not forgetting a plentiful supply of cold water, and the enema apparatus to inject it with; though I am thankful to say, in the case above they were not required, post partum hæmorrhage not being present.

In conclusion, I must remark, that, on further reference to Dr. Churchill's writings, I find, in his work on Diseases of Women, dropsy of the amnion is more specially mentioned, and the chapter devoted to that subject may be read, as containing more useful comments, taken in connexion with these two recent cases, than I can venture to put forth. No disease of the placenta existed as the cause of dropsy in Mrs. Collins, and I am disposed to think it had its origin in the ovum rather than the uterus.

The Upper Green, Tettenhall, near Wolverhampton.

ON THE MORTALITY OF THE METROPOLIS.

By J. J. FOX, Esq.

It is one of the advantages of our present system of Registration of Deaths, and the weekly reports issued from the Office of the Registrar-General, that we are able to watch the current progress of mortality, compare it with the past, and subject it to an analysis that may throw some light on the recondite causes of disease.

In the first place, the comparison of season with season; estimating the deviations, whether above or below the line of average mortality; then the placing in juxtaposition the atmospheric phenomena, on which so considerable a portion of disease and death are dependent;—then the analysis of the mortality into its component parts, to wit, the diseases and classes of disease that make up its sum total; and, finally, as far as we are able, the examination of its distribution in locality; noting its relative degree, if not in the districts, at least in the groups of districts, of the metropolis; it is by processes like these that we may hope to attain some knowledge of the laws that govern disease in the mass. It is true that both the facts and the inferences relate only to human life, as manifested in this great city; but independently of the deep importance any knowledge we may gather must have for the two or three millions to whom it relates, it has scarcely less value, as a contribution to general hygiene. Great cities, though not identical in the condition of their public health, are probably regulated by very similar natural laws; and even the country, with its much-coveted blessings of pure air, untainted soil, clear waters, and consequent low rate of mortality, shares, and that very largely, in the morbific influences of the town.

I propose, then, to draw attention to some of the leading facts in the mortality of the two quarters that have just elapsed, viz., the winter quarter, terminating in March, and the spring quarter in June; and, as the only fair mode of comparison is with the same quarter in former years, it will be best to treat of the two periods distinctly.

I.—*Mortality of the Winter.*

The winter of the present year, 1856, was marked by a lower mortality than that of any winter since the present system of registration commenced. The average of the 18 winters from 1838 to 1855 was 678 deaths to 100,000 living; that of the 9 years from 1847 to 1855 was 672. This last is the safer average to take, because some districts, not previously included, were added to the metropolis in 1847, and these districts being suburban, and probably healthier than the average, the effect has been to represent the mortality of the earlier period as rather more than that of the latter. Taking, then, 672 as the average mortality of past winters, that of 1856 amounts only to 560, being below the average 16½ per cent.; 1850, which was previously the lowest, gives 568; that year, and 1846, are the only instances of a winter mortality under 600. The highest of the past nine winters is the one previous to the present, viz., 1855, when it amounted to 779.

We have thus, during the winter season, a mortality varying between the wide limits of 560 and 779 per 100,000; and the winter we are now considering stands at the minimum point.

II.—*Distribution of Mortality among different Diseases.*

These 560 deaths in the population of 100,000 are built up, so to speak, by the accumulation of deaths from various diseases. If the mortality were distributed among these diseases in the usual proportion, it is evident that the mortality of each disease, and of each class of diseases, would be, like the total, 16½ per cent. below the average. Such a distribution is conceivable, and, although impossible in the infinite variety of Nature, yet it furnishes a starting point from which to note deviations. If we find a disease below the average, and, not only so, but below it by a larger per centage than 16½, that disease, besides being absolutely less fatal than usual, is less fatal relatively to the mortality of the season. If, again, a disease be below the average, but not so much as 16½ per cent. below it, that disease, although absolutely less fatal than usual, is more so in proportion to the total mortality, of which it forms a part. If it be above the average of the former seasons, the mortality is then high in itself, and high, as forming a larger fraction of the compound mortality from all diseases.

The various diseases, and classes of disease, may, therefore, be arranged in three groups. In the first, comprising those, the mortality of which is higher than the average mortality of former winters, we find croup, typhus, the class embracing rheumatism and diseases of the joints and bones, and the class containing diseases of the kidney. These last are about 1½ per cent above the average of the last nine years. The rheumatic class, in which I have included rheumatic fever, about 2½ per cent. Typhus prevailed to the extent of 9½ per cent.; while croup reached 36 per cent above the average. It is to be remembered that this is an average deduced from a short number of years only, and that croup is a disease subject to great fluctuations in its mortality.

The second group of diseases contains those of which the mortality is below the average, but not so much below as the total mortality. Although, therefore, they have been fatal to fewer individuals than usual, yet they form a larger proportion than usual of the total deaths of the quarter.

The class of diseases of the heart and large vessels is 4½ per cent. below the average; apoplexy, 5 per cent.; debility from premature birth, etc., 5 per cent.; teething, 7 per cent; paralysis, 9 per cent.; measles 9 per cent.; the class of diseases of the digestive organs, 11 per cent.; the class containing dropsy, cancer, and other diseases of uncertain seat, 11½ per cent; hooping-cough, 12½ per cent.; erysipelas, 14 per cent.; the class of diseases of the nervous system, 15 per cent.; consumption, 15 per cent.; the class of zymotic diseases, 16 per cent. This last class, so large and important, stands nearly at the same per centage as the mortality from all causes.

The third group contains the diseases with mortality, not merely below the average, but more so even than the total mortality; that is to say, they are such as have been especially effected by those causes, whatever they are, that have made this a healthy season.

Small-pox is 18 per cent. below the average; bronchitis, 18½ per cent.; hydrocephalus, cephalitis, and convulsions, the three infantile diseases of the nervous system, 19 per cent.; scarlatina, 20 per cent.; pneumonia, 28 per cent; the class of diseases of the respiratory organs, 33 per cent.; and diarrhœa, as much as 43 per cent.

III. *Character of the Winter.*

We are now in a position to express briefly the main features of the sanitary character of the season. It is one of very low mortality, in which diarrhœa, and diseases of the respiratory organs, (especially pneumonia), are very much less fatal than in former winters; in which diseases of the heart, and apoplexy, although rather less than usual, are a good deal more than proportionate to so small a general mortality;—while rheumatic diseases, and diseases of the kidney, actually exceed their usual prevalence in this season of the year; and two diseases, typhus fever and croup, are so much increased, that they may be regarded as the epidemics of the winter. To their distribution some further attention would be desirable.

IV. *Atmospheric State.*

The atmospheric character of the season, as obtained from the quarterly summary of the Greenwich observations, presents one or two points deserving notice. In the first place, the winter was neither a warm nor a cold one. Its mean temperature was very slightly above the average; in this respect it resembled the winter of 1850, with which it so nearly agrees in amount of mortality. Both were winters of average mean temperature. In other points, however, it differs from that year.

In the winter of 1850 there was a minimum of rain; in the present, the amount fallen was very slightly below the average. It would seem, then, that the average mean temperature was greatly concerned in the low mortality of the season. It was, doubtless, aided, in the case of this winter, by the extreme range of temperature in the quarter being a minimum—the thermometer neither ascending so high, nor descending so low, as in former seasons; the mean daily range, too, was lower than in previous winters;—thus exposing the human constitution to much fewer fluctuations of temperature than would probably be the case in winters where the range of temperature was great.

In January the barometer was low, but fluctuating very considerably; and there was pretty much rain.

In February there was much less range of barometer, and but little rain; while the mean temperature of the month was decidedly above the average.

March was particularly cold; the rain was not great, and was confined to one week; the barometer rather high and tolerably steady; and there was no great amount of wind.

V. *Relative Mortality of Divisions of the Metropolis.*

We have seen that the deaths in the Metropolis generally were 560 in 100,000; but in some divisions they exceeded this number; for example: they were at the maximum in the Eastern districts, 596 in 100,000; next to them come the

Central, 571. In the other three, the deaths were below the average; in the South Division, 556; in the Western, 545; while in the North they were at the minimum, at 531. These numbers represent the relative mortality of the several sections (or groups of districts) of the Metropolis; disease being, in the season under consideration, most fatal in the Eastern districts, and least so in the Northern.

If we now take the average for the past ten years of the winter deaths in each section, and raise these averages proportionally to the increase of population, we obtain numbers with which to compare the actual number of deaths this winter. The following is the result. We find the deaths in the Central Division, 17 per cent. below the average, just corresponding with the $16\frac{1}{2}$ which we found to be the rate for the entire metropolis. The Western Division is 12 per cent. the Northern 14, and the Eastern 15 per cent. below the average, showing that these districts have not partaken so much as the others in the higher salubrity of the season. The Southern Division, on the other hand, is nearly 20 per cent. below the average, thus manifesting not merely a higher degree of salubrity than the Metropolis in general (556 to 560), but a greater degree of improvement over former seasons.

I am well aware that inferences of this kind are open to two objections. First, that our averages do not fairly represent the average mortality, being drawn from too few years, and, therefore, liable to be depressed by a very unfavourable season, or unduly raised by one of very low mortality. This, however, is a source of error that will diminish from year to year; as our experience proceeds we shall approach nearer and nearer to a correct comparative mortality of the different districts and seasons. The second objection is drawn from the difficulty of estimating population, so as to calculate the mortality of any particular season. This difficulty does indeed make all our calculations mere approximations; but when applied to large masses of population there is fair probability that the error is but small, and after all, approximations, if cautiously used, are far better than no inferences at all. It must be remembered too, that to many of the inferences in this paper, such as those of the relative prevalence of various diseases—where the same basis is assumed for all the facts compared—this objection does not apply.

I propose in the next number to continue the same investigation into the sanitary state of the Metropolis during the past spring.

Stoke Newington.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

CONCUSSION OF THE BRAIN.

(Case under the care of Mr. COULSON.)

F. J., aged 15, was admitted into St. Mary's Hospital, November 9, 1855, under Mr. Coulson. The patient had, a short time before being brought to the Hospital, fallen on his head from a scaffold 16 feet in height. The effect of the fall was to produce insensibility, from which, however, he partially recovered soon after. About half-an-hour after the accident, and when in the ward of the Hospital, he became again insensible, and a fit of convulsions was noticed, preceded by some sickness. The legs and arms were affected with convulsive action, and the face was drawn to the left side. It was not ascertained whether the convulsions affected the extremities of one side more than the other. After the fit had terminated the patient lay curled up in bed, with the knees up to the chin, and remained nearly insensible. No wound of the scalp was found to be present; there was no bleeding from the ears or nose; and no evidence of fracture of the skull. The right clavicle was fractured about its middle, the skin over the seat of the fracture being entire.

The head was shaved, and covered with an evaporating lotion; an enema administered; the urine was drawn off by the catheter; and four grains of mercury with chalk prescribed twice a-day.

10th.—All this day the patient was quiet, and lay on the right side. He did not speak except when disturbed, and then called out for his brother. Both arms and legs were moved. The bladder was emptied twice, as no urine was passed voluntarily. It was not found possible to place the fractured clavicle in proper position; but as much was done as the circumstances of the case admitted, to promote coaptation at the seat of the fracture. The bowels had acted.

11th.—During the day he continued much the same as at the preceding report. When the catheter was passed he exclaimed, "Take it away." In the evening he evinced a return to a state of consciousness by asking for water to drink, and then took a little milk and beef-tea. Ordered saline antimonial mixture every four hours.

12th.—The patient lies on the back, with the eyes open, and he is apparently, to a slight degree, observant of what is passing around him. When told to put out the tongue, he does so a very little distance. To the question as to how he feels, he replies slowly, "Well." The pulse is very weak, so much so as not to be felt sometimes, and it is irregular and fluttering. There is visible pulsation of the carotids; the head is not hot. The pupils are equal; he opens the eyelids properly and equally, and swallows water readily and easily. The part of the head which came in contact with the ground—its right side—is now much discoloured.

14th.—State of patient a little improved. The tongue distinctly deviates to the right side; the pupils are equal. The pulse is slow, but more regular; the patient complains of pain in the head. Last night, for the first time, the patient passed water voluntarily. He is able to get out of bed with a little assistance.

20th.—Much improved; walks rather slowly. The tongue deviates to the right side a little.

December 3.—The report states that the patient is going on favourably. Tongue was noticed to incline still somewhat to the right. Speech a little slow.

18th.—Discharged cured.

The occurrence of convulsions together with abolition of sensation and perception, soon after the accident happened, and when the patient had somewhat recovered from the first effects of the fall, gave rise to suspicions of extravasation of blood within the cranium. In all probability there was some extravasation, possibly confined to the substance of the brain itself, and not poured out on either of the surfaces. As shown by Dupuytren, concussion of the brain produces minute interstitial extravasations, and there seems reason to believe that, in the present instance, there was extravasation of this kind, not very inconsiderable in amount, in the substance of the brain. The patient recovered, affording another instance of the impunity with which young people suffer severe injuries of the head. The fracture of the clavicle was properly attended to as soon as was possible, and the union which followed left the bone in a satisfactory position.

BLOOMSBURY DISPENSARY.

FRACTURE OF THE FRONTAL BONE, WITH CONTUSED WOUND, ERYSIPELAS, ETC.—CURED.

(Communicated by Mr. GEORGE L. COOPER, F.R.C.S., Surgeon to the Institution.)

W. E., aged 48, by trade a butcher, of short stature, phlegmatic temperament, with much nervous irritability, was admitted June 1 under my care, in consequence of a fall from a cart. The reins having snapped, he lost all power over the horse, which became ungovernable; he was thrown from the conveyance against a lamp-post, striking his forehead with great violence. Immediately after the accident, which happened on Whit-Monday, he was carried to St. Bartholomew's Hospital, where the wound was dressed, and persuasion used to induce him to remain there; but, having a wife and family, he declined the offer, when an application was made for attendance by "the Parish Doctor," whose assistant visited him twice or thrice, but subsequently they procured a letter for admission to the Bloomsbury Dispensary; and thus he came under my care.

Friday, June 1, I visited him, and ascertained the following history:—Until the last nine years, he has been a seaman in the merchant service, trading principally to China and the East Indies, during which period he drank very freely, and was attacked by fever, when he lost the use of his right arm, but recovered it again on his health improving. Since his return to this country, he has been a carcase butcher, and much

exposed to the weather, when "he has thought it necessary to keep up his strength with a drop of gin." His general health has been tolerably good, excepting an occasional cough.

In the centre of the forehead he had a deep contused wound, extending about two inches in length, angry in appearance, and discharging an unhealthy sero-purulent matter; the nose was much cut and inflamed, but the bones were not broken. At the distance of an inch and a-half from the frontal wound, a depression in the bone was easily discovered, situated over the left frontal sinus, in size about the dimensions of a 6d., with the circular edges rough and traceable, showing evidently that the outer table of the bone was driven in. Extending over the face and forehead was an attack of erysipelas, presenting the usual appearances, accompanied by bronchial irritation, and much fever. Ordered: ℞ Pulv. jalapæ c. hyd. chlorid. gr. xxv., statim. ℞ Antim. pot. tart. gr. j., pot. nitratis ʒjss., aquæ dest. ʒviij. M. ii. coch. ampl. omnib. 4tis horis. Lot. saturni ad faciem; catapl. panis ad frontem. Diet: arrow-root, tea, etc.

2nd and 3rd.—He is much the same; has no sleep at night; complains of his throat and his cough. The pain in the head is very great. Bowels are very open. Pulse 90, and weak. The erysipelas is very full. Omnia medicament. repetend. Omitte pulv. purg. Catapl. sinapis ad epigast.

4th.—Was very delirious last night, with but little sleep; his tongue is densely coated; the erysipelas has extended over the head; the wound discharges freely, and is improved in its appearance; pulse 80; cough is very troublesome; bowels are very loose; urine is ammoniacal. ℞ Tinct. camph. comp. ʒiij., liq. ammon. acet. ʒjss., mist. camph. ʒvj., M. ii. cochl. ampl. omnib. 4tis horis. The hair on the scalp to be cut very short. Lot. saturni sæpe applicand. Diet—beef-tea, milk, and eggs.

5th.—Has been very delirious throughout the night; is muttering to-day; the pulse 85, and compressible; bowels continue relaxed; the tongue is coated with dark mucus, with sordes about the teeth; the cough is easier, and expectoration copious; the erysipelas is over the head and face; the wound discharges freely. The broken bone produces no urgent symptom. ℞ Pil. sapon. c. opio gr. v., nocte sumend. Mist. et lot. repetend. Catapl. lini ad vulnus. Diet—beef-tea, jelly, etc.

6th.—Has passed a quieter night; still delirious at times. Bowels continue very relaxed. The pulse 85, and weak. The head is much swollen from erysipelas; in the face it has subsided. The tongue is blackish and dry, and he is very thirsty. The voice is thick and heavy. Complains of pain in the head, with much prostration. ℞ Pil. sapon. c. opio. gr. v. nocte maneque sumend. Mist. et lot. saturni repetend. Diet—beef-tea, milk, etc.

7th.—Is better to-day; he has been less delirious in the night, but still mutters occasionally. The cough is better, and the mucous membrane of the bowels is less irritable. Pulse 80. Mist., lot., et pil. repetend.

9th.—The erysipelas over the head is subsiding. The bowels are quieter. The wound discharges healthy pus, and flows freely when pressure is made over the injured bone. The cough is much easier, and he feels more tranquil. Pulse 78, weak and compressible. ℞ Quin. disulph. gr. viij., acid. sulphur. dilut. ʒss., tinct. opii. ʒj., aquæ dest. ʒviij. M. ii. cochl. ampl. omnib. 6tis horis. Pil. sapon. c. olio. gr. v. h.s.

10th and 11th.—Is going on wel. Remedi repetend.

12th.—Has passed a sleepless night, the stomach having become irritable, and the sickness returning at short intervals. The wound is looking healthy, and the edges of the bone are very distinct; but no symptom of compression has existed to lead me to suspect a fracture of the inner table. The erysipelas is nearly gone. ℞ Potassæ bicarb. ʒjss., acidi citrici ʒj., acid. hydrocyan. dilut. ʒss., aquæ dest. ʒviij. M., ii. cochl. ampl. omnib. 4tis horis. Pil. sapon. c. opio. gr. v., h.s. Lot. saturni repetend.

13th and 14th.—The sickness has subsided, but prostration is very great; the pulse 55, and feeble; complains of being tender on his loin, where the parts are slightly inflamed; his tongue is coated with a dark fur; great restlessness and despondency prevail. Mist. acidi hydrocyan. dilut. repetend.; vini rubri ʒj. bis die. ℞ Lot. saturni ʒviij., liq. ammon. acet. ʒij. Ft. Lot. parti affectæ sæpe applicand. Pil. opii horâ somni. Diet nourishing.

15th and 18th.—Is improving; the wound is healing, and he sleeps better; the bowels have become quiet, and the cough is quite gone. ℞ Infus. cascarillæ ʒviij., sod. sesquic. ʒij. M., ii. cochl. ampl. ter die.

21st.—Has been daily improving, but this morning complains of a tenderness in the big toe, which is attacked with gout. The wound in the forehead has nearly closed. ℞ Liq. ammon. acet. ʒj., vin. colchic. seminis ʒij., magnes. sesquicarb. ℈ij., aq. menth. pip. ʒvii., M. ii. cochl. ampl. omnib. 6tis horis.

25th.—The gout has subsided; the erysipelas has quite gone; the wound has healed, and the fracture, although irregular, is firm. Mist. cascar. c. sod. repetend.

30th.—Is quite well, and in good spirits. Cured.

Remarks.—On reviewing the above case, there are some points of practical interest which are worthy of comment, and are highly calculated to disseminate fixed principles in the treatment of this class of accidents. We may notice, in the first place, that the injured bone did not correspond with the wound in the integuments, a circumstance to be explained, I presume, by remembering the force with which a man may be ejected from a vehicle, falling with a rotatory or spinning action, thus primarily striking the most prominent point, and secondarily, the adjoining. In this way a breach of surface may be occasioned at some distance from the original seat of violence. The sensation created on the application of the finger to the frontal bone was very singular. It resembled, in the highest degree, the excavation produced by the removal of a circular portion of bone by the trephine, excepting that its edges were rougher, and, of course, of less depth, inasmuch as the lesion extended only to the outer table, and perhaps somewhat into the diploe. In the treatment of this case I considered it advisable to withhold the knife, not deeming it desirable to enlarge the wound as a matter of curiosity, since the flow of matter through the opening was free and abundant, and no symptom of compression presented itself to induce me to suspect a fracture of the inner table, or of irritation from spicula of broken bone. I therefore resolved to keep it a simple, instead of converting it into a compound one, the favourable result of which has been proved. Then with reference to the treatment of erysipelas, I know that many Surgeons advocate the stimulating plan, especially in free drinkers; but correct as the theory may be in certain instances, I invariably hesitate before adopting it, making the condition of the pulse my leading star, and resorting to stimulants only as circumstances may require; at the same time I believe that a wide distinction may be drawn between idiopathic and traumatic erysipelas. It was singular to observe also how much the mucous membranes sympathized in this case, illustrative, I consider, of the wandering nature of this form of inflammation, yielding rapidly in its severity to the administration of anodynes, aided by a nutritious diet.

THE PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

SERIES ILLUSTRATING THE CONNEXION

BETWEEN

BRONZED SKIN AND DISEASE OF THE SUPRA-RENAL CAPSULES.

(Continued from page 649, Vol. XXXIII.)

The particulars of the following case have been kindly furnished to the writer by Dr. Miller, of Eye, in Suffolk. It would appear that the patient offered, in the general symptoms which attended the change in colour of the skin, in the irremediable nature of her cachexia, and in the mode of death, a very exact counterpart to those observed by Dr. Addison and to others since published in this journal. It is greatly to be regretted that the evidence to be afforded by a post-mortem is wanting, but the case has nevertheless much value.

We may here mention, for the convenience of any interested in the subject, and in answer to many inquiries, that there are at present several patients under care in the different metropolitan hospitals, offering good examples of bronzed skin. A lad, under the care of Dr. Burrows, in St. Bartholomew's, is a typical illustration of it.

Two cases in middle-aged women, one of them fairly charac-

terised, and the other less so, are in the Marylebone Infirmary, under the care of Mr. Filliter.

At the Metropolitan Free Hospital two females are attending on Mr. Hutchinson's days, as out-patients, who exhibit this change in colour. One of them, a Jewess, aged 46, offers a very good example indeed of it; the other, a young child, is much less characteristically affected. We have no doubt but that any one feeling sufficient interest in the subject to desire to do so could easily obtain opportunities for the examination of any of these patients.

BRONZED SKIN.—CACHEXIA AND EXTREME DEBILITY—DEATH—NO AUTOPSY.

(Under the care of, and reported by, Dr. W. W. MILLER.)

Phœbe Barber, aged 51, wife of an agricultural labourer. Had always enjoyed very fair health till after the cessation of menstruation, (about four years ago,) since which time her health has been gradually giving way. She consulted me last January, when I was much struck with the peculiarly dark appearance of her skin. From having been a fresh-complexioned woman she was now almost as dark as a Chinese. Her principal symptoms were gradually increasing weakness, loss of appetite, nausea, occasional waterspringe and sickness, a sinking feeling at the pit of the stomach, and constipated bowels.

Her pulse was quiet and regular. No cough or difficulty in breathing. Tongue moist and clean, and urine natural in quantity and colour.

As her symptoms and appearance exactly tallied with the description of the disease recently described by Dr. Addison, I formed in my own mind a very unfavourable prognosis of her case. The bronzed appearance of her skin was most apparent in her face, neck, chest, and arms, where it was diffused, but there were patchy discolorations on the legs and body.

The above symptoms continued to increase in spite of all remedies, till she died about three months after, sensible to the last, apparently from sheer exhaustion. I was unfortunately unable to procure a post-mortem examination.

Medical Times & Gazette.

SATURDAY, AUGUST 2.

THE LATE PARLIAMENTARY SESSION.

The Session of Parliament having ended, and legislation having, therefore, ceased for the present, it becomes our duty to consider briefly how far the interests of the Medical Profession have been advanced or retarded since the commencement of the year. It will be found, that while there is not much reason for congratulation, there is none for despair; for although we cannot boast that any measures have been passed which can greatly improve the condition of our Profession, we may at least rejoice that our voice has been heard within the walls of Parliament, and that our grievances have at length been made known. The little which has been accomplished has been achieved in spite of great difficulties, among the chief of which is the absence of sufficient Representative power in the Legislature duly to convey to the great Council of the Nation the expression of our sentiments. Not only, indeed, may we complain of being thus far unrepresented, but we may assert with truth that we are grossly misrepresented in the persons of Members who, though ostensibly numbered among our ranks—like Dr. Michell, the Member for Bodmin—are utter renegades and apostates from the true faith of Medicine, and who, by their absurd and ridiculous speeches, throw the greatest discredit upon the Profession. From this condemnation we would desire to exclude Mr. Brady, who has been a consistent advocate of the rights of Medicine to the consideration of the State; and we ought in justice to offer a slight tribute of gratitude to the President of the Board of Health, whose efforts in our behalf, although marred by vacillation and indecision, have been characterised by a praiseworthy anxiety to elevate us to a due position in the eyes of the public. Still it must be said, even of our friends in the Legislature, that they fall far short of the necessities of the case:

> "Non tali auxilio, non defensoribus istis
> Tempus eget;"

and we must still wait for the coming man, who shall have sufficient weight of character, and sufficient powers of speech, to compel the House of Commons to listen to our claims and to redress our wrongs.

We cannot but lament the failure, during the Session of Parliament which has just concluded, of several measures of great utility to the public as well as to the Medical Profession; and our regret is not lessened by the fact, that these measures have been abandoned by their authors almost without a struggle.

One of the measures thus doubly beneficial, was that proposed for the extension of Vaccination among the people; the Bill which was framed on this subject having been well and carefully considered by persons who had devoted much time and talent in its thorough investigation. It would be idle in us, addressing chiefly Medical readers, to defend the discovery of Jenner against the few silly and ignorant people who refuse to recognise its inestimable value to mankind. While the treatment of many diseases is avowedly difficult, often uncertain, and sometimes unsuccessful, the prophylactic treatment of small-pox by Vaccination may be said to be so uniformly beneficial as to amount to a truth almost capable of mathematical demonstration. The few facts brought forward in opposition to the salutary influence of Vaccination, admit of easy explanation; while the stories, so foolishly put forth, of the evil consequences of the trifling affection caused by cow-pox inoculation, may be fearlessly set down as the offspring of pure invention. The weight of evidence in favour of the protective power of Vaccination, is perfectly overwhelming; and yet, because some reckless assertions are made in the House of Commons as to its injurious effects, the whole question is to be referred to a Select Committee of the House, who are to examine the whole question over again, and to determine whether Jenner was a gross impostor, or a benefactor of human nature! We do not, for a moment, doubt the issue of this inquiry, which, we hope, will be thoroughly pursued; but, in the meantime, the pestilence of small-pox is allowed to stalk abroad, and, unmolested, to sweep off its annual tribute of victims from the heart of the nation!

The measure of Medical Reform, also, was shelved without any sufficient reason. After the long and arduous struggle which had taken place on this subject, it was a matter of general congratulation that the Government had at last consented to entertain the question, and to prepare, or, at any rate, to sanction, a comprehensive scheme of improvement. We by no means assert that the Bill introduced was calculated to please every one, nor could any effort of human legislation hope for such success; but the new plan introduced many, if not most, of those great principles for the attainment of which the Profession has so long laboured.

The only other measure connected with the Medical Profession, was a Bill for giving increased powers to the Board of Health; but this Bill being pressed to a division, was rejected by the House of Commons.

Notwithstanding these failures, we are not inclined to despair of the future. The Profession has found a voice in the Legislature; and the value of its services during the late war, and the noble conduct of our Military and Naval brethren, have doubtless produced a most beneficial effect in our favour upon the public mind; so that, though justice to ourselves

and protection to the public may be delayed, they will both be eventually granted. Lord Palmerston truly observed, when replying to Mr. Disraeli's summary of the ministerial failures during the last session, that Legislation must, in this country, necessarily be slow, as it required much discussion and much argument to dissipate old prejudices, and to reconcile the public to innovations. Our own Profession has so long been neglected by those in authority, that we may well feel grateful that our voice has been heard at all; and as for the principles of Hygiene, they are still so imperfectly known by the mass of the public, that we can hardly wonder at the difficulty which exists in indoctrinating the popular mind with true views of sanitary science. Let the members of our Profession make the best use possible of the ensuing recess by directing the attention of the representatives of the people to Medical matters, pointing out to them the manifold evils of which we complain, and the numerous enemies, in and out of Parliament, with whom we have to contend. As something, however little, has been already done in our behalf in the last Session, we may hope for more success in the next; for it is by obtaining power in Parliament alone that we can obtain redress.

ARMY MEDICAL DEPARTMENTS (a).

SARDINIA.

The Medical Department of the Army of our brave ally was placed upon its present footing in 1850. From 1832, when it may be said to have received its first organization, the three branches of the Profession were kept distinct, and it was recruited from pupils educated at the expense of Government in the Military Hospitals. But in 1850 the distinction between Physicians and Surgeons was abolished, and the pupils attached to the Hospitals were suppressed. In 1853, the rank of Apothecary, which had been omitted in the reorganization, was again introduced. The establishment, pay, and relative Military rank of the Medical Officers, are shown in the following Table :—

	No of each employed.	Pay.	Relative Military Rank.
		£	
General Medical Officer	1	200	Major-General.
Medical Inspectors..	2	144	Colonel.
Apothecary	1	144	Colonel.
Medical Secretary	1	80	Captain.
Divisional Medical Officers, 1st class ..	3	128	Major.
,, ,, 2nd class ..	6	102	Major.
Regimental ,, 1st class ..	16	96	Captain.
,, ,, 2nd class ..	16	88	Captain.
,, ,, 3rd class ..	16	80	Captain.
Battalion ,, 1st class ..	56	64	Lieutenant.
,, ,, 2nd class ..	56	52	Lieutenant.
Apothecaries, 1st class	3	72	Captain.
,, 2nd class	5	48	Lieutenant.
,, 3rd class	17	40	Sub-Lieutenant.

The General Medical Officer, the two Medical, and the Apothecary Inspectors, with the Medical Secretary, form the Council of Health for the Army.

Medical Officers must enter the Service with the rank of Battalion Medical Officer of the 2nd class, and serve one year in an Hospital before being appointed to a Corps. After two years' service in this grade, they are eligible for promotion to 1st class, without examination. Two-thirds of these promotions are given by seniority, and one-third by selection.

The Regimental Medical Officers of the 3rd class are appointed by the result of a competition between the three senior Battalion Medical Officers; they are promoted to the 2nd class by seniority; and these again to the 1st class—two-thirds by seniority, and one-third by selection, after not less than one year of service in the inferior grade. Before being eligible for promotion to Divisional Medical Officer of the 2nd class, they must serve two years as Regimental Officer of the 1st class, and give proof of their fitness in a *concours*. They are then promoted alternately by selection, and according to the place they held on the examination lists. The promotion to the 1st class is entirely by selection; and after at least one year of service in the 2nd class. The subjects of examination, and the mode of conducting these *concours*, are decided by the Council of Health.

There is a central laboratory for the Army, but the Director, and two Apothecaries employed in it, are considered to be Civil Officers.

SAXONY.

The Medical Department of the Army of Saxony was organized on its present footing in 1851. It is superintended by a Principal Medical Officer, who is in direct communication with the War Minister, and who is assisted by a Council composed of two Brigade or Regimental Medical Officers, a Battalion Medical Officer and a Secretary. It comprises Medical Officers, Apothecaries, Veterinary Surgeons, and the Sanitary Company, and is recruited from the military pupils of the Medico-Chirurgical Academy of Dresden, founded in 1813. The number of these pupils is fixed at twelve, and the conditions of admission into the academy are, that they must have attained the age of 17, be candidates in literature, have passed a preliminary examination, and must engage to serve nine years as Medical Officers from the date of their leaving the Institution. The pupils receive about 20 francs a month, and are free from all matriculation and examination fees. On the conclusion of their studies they pass an examination in Surgery, and are then attached to the Army as Company Medical Officers of the 2nd class; after six months' service, and having undergone an examination in Medicine, they may pass into the 1st class.

After having served a year in that rank and passed a third examination, or if they are Doctors of Medicine, and have served satisfactorily, they get the title of Assistant Medical Officer and the rank of Officer. Seniority is the rule for promotion in the department, but exceptions may be made in favour of great merit or distinguished services.

The Sanitary Company consists of a Lieutenant, a Sub-lieutenant, some Non-commissioned Officers, and 162 men; its duties are the same as those of the Hospital Assistants in the Prussian Army(b). The Pharmaceutical department is conducted by an Apothecary, having the rank of Lieutenant, with the aid of two Assistants who are selected from the Apothecaries forced by the Conscription into the Army, and who have the rank of Company Medical Officers of the 1st class.

The following table shows the establishment, rate of pay, and Military rank of the various officers :—

	No. of each grade.	Yearly rate of pay.	Relative Military Rank.
		£ s. d.	
General Medical Officer on the Staff ..	1	193 4 0	Lieutenant-Col.
Divisional Medical Officer	1	108 16 0	Major.
Brigade or Regimental Officer ..	9	108 16 0	Captain.
Superior Medical Officer of Battalion .	8	87 12 0	Lieutenant.
Battalion Medical Officer	8	58 8 0	Sub-Lieutenant.
Company Medical Officer, 1st class ..	61	30 16 0	Sergeant.
,, ,, 2nd class ..	53	21 18 0	Sergeant.
Apothecary	1	73 0 0	Lieutenant.
Assistant Medical Officer at the Academy	6	43 12 0	Sub-Lieutenant.

All the Medical Officers are entitled to lodging allowance, which varies in amount in different garrisons. The principal

(a) Continued from Vol. XXXIII., p. 262.

(b) See *Medical Times and Gazette* page 261.

Medical Officer also receives extra pay as Professor in the Academy.

DENMARK.

So early as 1736 a School of Medicine was founded at Copenhagen, in which a special class was established for the training of Medical Officers for the army. This underwent various modifications until, in 1838, it was incorporated with the Faculty of Medicine of the University of Copenhagen. The present organization of the Medical Department of the army was adopted in 1842, and comprises only three grades, an Inspector-General, with the relative rank of Major; Medical Officers ranking with Lieutenants of the 1st Class, and, after six years' service, with Captains; and Assistant Medical Officers corresponding with Lieutenants of the 2nd Class. Their pay and allowances are as follow:—

Grades.	Pay and Allowances.
	£ s. d.
Inspector General	242 4 0
Medical Officer, 1st class	164 0 0
,, ,, 2nd class	132 0 0
,, ,, 3rd class	90 0 0
Assistant Medical Officer	47 4 0
,, ,, after 4 years' service	48 16 0
,, ,, after 10 years' service	54 0 0

The rate of retired pay is regulated by a scale which applies to all the public functionaries of the State. After twenty-nine years' service it may amount to two-thirds of the full pay, but can never exceed that proportion.

The Medical Officers do not wear epaulettes, but are distinguished by the embroidery on the collar and facings of their coats, while their rank is marked by the number of gold stars upon the collar.

The mode of recruiting and promotion is peculiar. When an appointment of Assistant Medical Officer becomes vacant it is advertized in the papers, and a notice affixed to the gates of the University. From the applications addressed to him in consequence of these notices, the Inspector-General selects the three he considers the most eligible, and from these the War Minister chooses one to submit for appointment by the King. A similar course is followed in the case of the Medical Officers, the Assistants not being considered to have any claim to the promotion unless their qualifications are equal to those of the civil candidates, when they are entitled to a preference.

THE WEEK.

It is not a little remarkable, that some of our Medical Officers of the Army and Navy who have received no mark of distinction from our own Government, have been decorated by the French Emperor with the Order of the Legion of Honour. An imperial decree appears in the *Moniteur* of June 16, giving the names of the following officers who have received this decoration:—*Officer*—Sir John Hall; *Knights* or *Chevaliers*—Dr. A. Gordon, Dr. J. Mouat, Dr. T. P. Matthew, Dr. R. C. Elliott, Dr. T. Alexander; Surgeons, Fasson and Ward; and Assistant-Surgeons Sylvester, Fair, O'Callaghan, Jeeves, M'Kinnon, Gibbons, Park, and Taylor. We understand that the selection of Surgeons and Assistant-Surgeons was made on the principle of selecting those who had served most continuously in the trenches or in concert with the French. Dr. Elliott is the Senior Surgeon of the Artillery employed. The other appointments were made from the Staff, the gentlemen having already received our Order of the Bath. It is thought hard that very many Regimental Surgeons who have stood the whole brunt of the campaign, and never left their work from the beginning to the end of the war, should have been passed over, and returned to England in precisely the same position in the service as when they left. Only four Naval Medical Officers have received the decoration:—Dr. Dees, Inspector, and Mr. Rees, Deputy-Inspector, and Surgeons Smart and Jenkins. We have, on a former occasion, brought the claims of Drs. Rees and Smart before our readers, when commenting on the late award of the Order of the Bath, and have great pleasure in seeing that the French Government have rewarded services our own Admiralty have ignored. Mr. Jenkins was Senior Surgeon to the Naval Brigade employed ashore before Sebastopol, and well deserves the honour bestowed upon him. There are other Naval Surgeons, however, who feel, not unnaturally, aggrieved that so small a share of those honorary distinctions should have fallen to their department of the service.

Although the jury who tried William Dove recommended the culprit to mercy on the ground of his defective intellect, it does not seem at all certain that this lenient view will be successful with the officers of the Crown. It is said that the Judge who tried the case did not join in the recommendation of the jury, and that the Secretary of State for the Home Department sees no reason why the last penalty of the law should not be enforced in the usual manner. After a full consideration of all the facts of the case, so far as they have been made public, we find no cause for altering the opinion we expressed last week, namely, that the insanity of the prisoner has not yet been proved. Many of the reprehensible acts which he is reported to have committed were those of an idle and mischievous schoolboy, and many others were marked by such wanton cruelty as ought to have brought down punishment upon him; while the plea of drunkenness, to which vice he appears to have been very much addicted, can be held only as an aggravation of his offences. We are no friends to the hangman's office, but believe that no good result can ensue from the escape of this felon from his doom.

From the Report lately published by the National Vaccine Board, it appears that the employment of lymph among our soldiers and sailors has been most successful as a prophylactic against small-pox. The Board remarks that the progress of Vaccination is materially impeded by carelessness, wilful negligence, and the prejudice of the poor and ignorant, from which some of the wealthier classes of society are reported to be by no means exempt. The report goes on to state, that the effect of the Vaccination Extension Act, cannot for some time be satisfactorily ascertained, and that there exists no means of testing it without an unfailing central source of supply. This great defect in the present machinery of the Vaccination Acts, namely, the absence of any central authority for providing a due supply of lymph, and for superintending the operation in the different districts, would have been remedied if the Vaccination Bill brought in by Mr. Cowper had passed into a law. Without such supervision we conceive that all attempts to make Vaccination effectual must necessarily fail, more especially when we reflect that the only persons who now control the details of the operation are the Boards of Guardians: perhaps the most incompetent persons who could be selected for the purpose.

It will be recollected that, at the close of last year, a young Scotch Surgeon was found barbarously murdered in the North of England, and that public attention was immediately directed to the detection of the assassins. By a series of circumstantial facts gradually and laboriously collected, suspicion was made to fall upon two men, who have, during the past week, been put upon their trial. The case is a very interesting one, as showing the ingenuity which may bring a multitude of suspicious circumstances to bear upon a parti-

cular person or persons, and the equal ingenuity with which all these circumstances may be explained away by the counsel for the accused. In the present instance we are bound to confess that the evidence was insufficient to convict the prisoners; and the jury, having taken two hours to consider their verdict, appear to have been impressed with the difficulty of coming to a decision. Thus the Burnopfield murder, committed in the open light of day, must remain, and probably for ever, a mystery shrouded in impenetrable obscurity.

Two men were tried at Ipswich on Tuesday last for administering arsenic to four horses, with the intention of destroying them. It appeared, however, that although the administration of the poison was not denied, the accused persons had given the drug with the intention of improving the coats of the horses; and the case, therefore, terminated in a verdict of acquittal. In the course of the trial, Lord Campbell asked how it happened that the prisoners obtained possession of the large quantity of arsenic which it seemed they had used; and it was replied that, although druggists were prohibited from selling this poison, yet that other persons, such as hawkers and ratcatchers, still sold it in great quantities. It is right that this fact should be known, and that the parties who sell this poison, whoever they may be, should be brought under the influence of the law.

REVIEW.

Sight-seeing in Germany and the Tyrol in the Autumn of 1855. By Sir John Forbes. Pp. 378. London. 1856.

At the present period of the year, when those who have leisure and opportunity are preparing for their summer excursions, the work of Sir John Forbes is peculiarly acceptable, and may be regarded as a very good and trustworthy guide to the route which he marked out for himself in his last year's tour. When we find that Sir John visited Aix-la-Chapelle, Leipzig, Berlin, Dresden, Prague, Vienna, Pesth, Augsburg, Munich, Nuremberg, Frankfort, Mayence, Worms, Spires, and a host of other towns of less note, besides sailing down the Danube and the Rhine, and exploring the beauties of Saxon Switzerland and the Tyrol, and that he accomplished all this in less than two months, we are really surprised at the industry he must have exercised in his peregrinations. We find him travelling early in the morning and late at night; sometimes examining picture-galleries, gardens, theatres, and churches; at other times wandering among the wild scenery of the mountains and the floods; and noting down his impressions of what he has seen with the same indefatigable zeal as that which characterises the excursion itself. The author is well known to the general reader as a most intelligent observer of men and things; and while many of the general public will no doubt visit, during the ensuing season, several of the spots marked out by Sir John Forbes—although much that is beautiful and well worth visiting is to be seen within the range of our own island—yet, if they will compass foreign lands, we can wish nothing better for many of the overtasked members of our Profession than one or two months' relaxation, in the contemplation of the wonders of nature and of art which are so pleasantly described in the present volume.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE EMPLOYMENT OF SETONS.

This not long since formed the subject of an animated and prolonged discussion at the Académie de Médecine. It led to learned dissertations on the antiquity of the doctrine of revulsion and various other topics to which we cannot advert; but we may sift out from the wordy mass the few practical observations that were made upon the subject.

M. Bouvier introduced it by adverting to the objections to the employment of setons entertained by many modern practitioners, and attributing any ill effects they may have observed to the mode of operating. That which he himself employs is much less painful and quite as efficacious as the old mode. He uses a very narrow needle, with a lance-shaped point, which, in place of a skein of silk, carries only a small thread, covered with some impermeable substance, such as that which forms the gum-elastic bougies, but somewhat more supple. It is let in at a slit at the end of the needle. The passage of this small thread causes little or no pain, and its polished surface allows of its being kept very clean. If an insufficient amount of irritation be induced, another thread, or even two or three, may be placed in juxtaposition with the first, and in this way we are able to dose or regulate the amount of irritation. In this way, the filiform seton may, in a great number of cases, be employed as a substitute for the ordinary painful seton, while it leaves far less considerable cicatrices. Gutta percha is found to be too hard a material, but flexible chains of gold, silver, or platinum may be advantageously employed, especially as precautionary setons in relapsing ophthalmia. As in the case of earrings, the suppuration ceases around the foreign body, and no inconvenience, beyond the necessity of attention to cleanliness, it caused to the patient. M. Bouvier presented several children to the Academy who had suffered from ophthalmia, and had derived benefit from the employment of filiform setons.

M. Gerdy observed that the employment of the seton is so convenient that it is frequently had recourse to; but in his own experience he has found it not only giving rise to circumvicinal inflammation, but also augmenting the original mischief, as for example, in ophthalmia and amaurosis—so that the result following its employment has sometimes proved quite opposite to the one proposed. For these reasons he has abandoned the use of the seton. M. Malgaigne observed that originally a believer in the efficacy of exutories, he had recourse to them very many times under the form of seton, moxa, or issue; but he has come to the conclusion that their beneficial effects are very doubtful indeed—the success seeming due to their prolonged employment having been really due in many cases to mere expectation. He has long studied the action of setons and moxas on diseased joints, and has arrived at the conviction that if good effects do not result from their employment during the first few days they are of no service. For years he has now left off employing setons, the moxa, or prolonged issues. He has been long struck with the great abuses that result from the retention of issues. He particularizes their retention, for he is far from denying the utility of the moxa or cautery in inducing the cessation of pain. But we must not confound the influence of a sudden irritation, or of one even prolonged for some days with that of setons or issues remaining *in situ* for months or years, and to which nature becomes so habituated that patients are compelled to retain them, their operation becoming, however, as inert as that of ear-rings. Since he has held the doctrine of the inutility of exutories, he has in vain requested numbers of practitioners and pupils to see whether they could tax their memory with a well authenticated example of their successful employment in one case in ten or even one in twenty.

M. Velpeau observed that without being a great partizan of the seton, he admits its therapeutical power; but he regards the filiform suture now recommended as of very questionable efficacy, and approaching the fallacies of homœopathy. Like the homœopathic remedies, these setons are employed in chronic affections, the various phases of which are little known beforehand; which are sometimes cured spontaneously, and which are successively treated by a crowd of remedies, the last given, if it happen to have arrived at an opportune time, reaping the whole credit of the case. M. Velpeau cannot, however, join with M. Malgaigne in his wholesale reprobation of setons and issues. As regards their employment in diseases of the eye, the following are the conclusions he has arrived at:—"All revulsives cannot be indiscriminately resorted to, each being more fitted for certain forms of disease. Blisters are of especial use in acute and superficial ophthalmias, such as conjunctivitis; issues in the chronic affections which engage the ball of the eye; while the seton should be reserved for some of the diseases belonging to the latter category, but especially for affections of the cornea, and those of undefined seat. In these, even, they are rarely to be used at first. I usually employ them only in obstinate cases, and espe-

cially in amauroses, complex forms of disease, the precise anatomical characters of which can hardly be ascertained. It is in such cases, when the amaurosis is not dependent upon deep-seated disorganisation of the eye, but upon some unseizable modification of the membranes, that I apply setons to the nape, and, I add, with indubitable advantage, after the failure of numerous other remedies." To sum up, M. Velpeau employs the seton in amaurosis when it is not sympathetic of organic lesion or visceral disturbance, depending upon certain little known modifications of the eye, or the nerve or brain; and in keratitis, tending to chronicity and resisting bleeding, blisters, collyria, calomel, and purgatives. When perforation has been threatened, he has found very remarkable effects result from the seton. In vascular keratitis, though still sometimes proper, it is in general less useful; and in conjunctivitis it is still less indicated. M. Clot-Bey stated that the Arabs from time immemorial had employed small setons in their treatment of diseases of the eye. They are placed at the external angle of the eye, over the eyelids themselves, or in their vicinity. For several days there is considerable fluxion around the suture, and this is followed by moderate suppuration. He has frequently followed the practice with advantage both in Egypt and in France. A noose of black silk is passed into a fold of the skin, and may be easily hid by the hair, its presence not preventing the patient following his occupation.

M. Bouley observed that the seton is much used and abused in veterinary practice. The horse offering a remarkable predisposition to suppuration, this follows in a few hours after the application. By a coincidence, the explanation of which is not attempted, the production of artificial suppuration is attended with a cessation of that which may elsewhere exist, and this may give rise to the abuse of the seton; but it has also its intelligent use. One point M. Bouley insisted upon, viz., the different mode of action of the seton according to the degree of gravity of the disease. If the affection is simple, and of regular course, a suppurating phlegmon is formed around the seton in a few hours, while, when a grave condition is present, likely to prove fatal to the organism, there is complete absence of all reaction. The seton also indicates other general conditions, *e. g.* medicinal saturation. Absorption of mercury never induces salivation in the horse, and the seton becomes a precious means for indicating saturation—the suppuration becoming greyish, and very fetid. It also facilitates the exploration of Medical constitutions. At certain periods the most simple wounds of operations have a tendency to become gangrenous, so that the operation of castration has sometimes acted like a true epidemic, while the condition of the wound resulting from a seton would have warned against our undertaking any operations. M. Bouvier has stated that a seton acts more by the irritation it induces than by reason of the suppuration that results; but certainly this is not the case in the horse. A seton of three metres long yields about 48 grammes of pus per diem; and six such, which are not uncommonly applied, would yield 288 grammes; or for the six days, which constitutes the medium time of application, 1728 grammes. A horse losing this quantity is in an analogous condition to that of a cow, from whose udders a similar quantity of the elements of the blood are abstracted. Such cows, though their appetite and digestive powers are so active, do not become fat; and so, too, the seton is a true spoliative agent, and an exutory in the truest sense of the word, removing from the blood a notable portion of its constituent elements, and operating as a resolvent. By the activity it imparts to interstitial absorption it may cause the disappearance of morbid products that have not acquired a too great tenacity.

M. Piorry, during the first twenty years of his practice, habitually employed setons and the other means of inducing permanent secretions; but he now believes that he never obtained in such cases any other results than were derivable from regimen, repose, and the other means simultaneously employed, and he has now well-nigh renounced their use. He never has found any inconvenience to result from their removal from the numerous patients who come to him bearing them. Not only does he regard means of artificially inducing suppuration as useless, but he believes that they may often act mischievously upon the fluids of the body. Thus, persons who have long retained them, and who have become pale and cachectic, resume their colour and good looks when the suppurating surfaces are dried up.

Bulletin de l'Académie, Tom XXI., pp. 52—249.

ON ARTHRALGIA IN PHTHISICAL PATIENTS.

By M. BEAU.

M. Beau draws attention to the arthralgic pains met with in phthisical patients, embracing under the term pains in the limbs as well as those of the joints. They are almost exclusively confined to the lower limbs, and are very rarely limited to one of these, although they are often more intense on the one side than on the other. It is also very rare to find the pains affecting exclusively the thigh, leg, or foot, the entire extent of the lower limbs being most frequently invaded. The pain in some is of a wearying character accompanied by extreme lassitude, while it is in others lancinating, taking the course of the nervous branches. The intensity of the pain, too, is very varying, some patients hardly suffering from it, while in others it is intolerable, calling forth cries and depriving of sleep. Sometimes, at the very commencement, it is provoked only by pressure, but it soon comes on spontaneously, and when it is intense the slightest touch suffices to call forth the patient's cries. It undergoes exacerbation, especially at night. No convulsive movements accompany the pains, and when very acute the limbs have been observed to be flexed and the muscles relaxed, the patient being unable either to elongate his limbs or employ them. It is very difficult to localise these pains. They affect the lower limbs in their mass, without our being able to indicate their precise seat in the nerves, muscles, or bones, either before or after death. This arthralgia, as a predominant symptom, is scarcely met with in more than a fourth of the patients who die of phthisis, and it generally comes on with the symptoms constituting the third stage or colliquative period of the disease. It is especially observed in cases in which there is great emaciation, the hectic excessive, and in young persons of the female sex. Sometimes it is complicated with simple œdema, and might be mistaken at first for phlegmasia dolens. The prognosis is very bad, the arthralgia indicating the fatal and rapid character of the phthisis. Opiates, employed externally and internally, act as palliatives, and the pains may be often assuaged by surrounding the limbs with hot cloths.

L'Union Médicale. 1856. No. I.

EXCERPTA MINORA.

Preparation of Caustic with Gutta Percha.—M. Richard has recently brought this before the Paris Society of Surgery. Gutta percha in powder is intimately mixed with pulverized caustic in proportions according to the strength required, as, *e. g.*, two parts of chloride of zinc to one of gutta percha. The mixture is to be gently heated in a tube or porcelain capsule, over a spirit lamp. The gutta percha softens, and becomes thoroughly impregnated with the caustic, so that on cooling a gutta percha port-caustic is formed. By its properties the gutta percha possesses the advantages of not altering the tissues, of preserving its consistence and flexibility, of insinuating itself by its suppleness into either natural or abnormal canals, however tortuous, of assuming any desired form under the fingers of the Surgeon, and of allowing, by reason of the porosity of its molecules, the exudation and unimpeded action of the caustic it contains.—*Journal de Chimie Méd.* 1856. p. 31.

Variety in Conformation of the Coracoid Process.—M. Fano, Prosector to the Faculty of Medicine, states, (1.) In certain subjects the coracoid process is strongly directed outwards, passing more or less the plane of the glenoid cavity. (2.) In such a conformation the relations of the head of the humerus and the coracoid, in complete and incomplete subcoracoidean luxations, and in intracoracoidean luxations, are quite different from those generally admitted. (3). Thus, in an incomplete subcoracoidean luxation, we should find the pathognomic signs of the complete, and in complete subcoracoidean luxation we should find those of intracoracoidean luxation. (4.) Therefore, for the exact diagnosis of those luxations, we must first assure ourselves of the amount of external deviation of the process.—*Rév. Méd. Chir.* XVIII., 334.

Effects of Digitalis on Generative Organs.—M. Brughmanns says, that if from 35 to 40 centigrammes of pulv. digitalis be given for five or six days, the most complete hyposthenizing effect is produced on the generative organs. He has thus given it with very great advantage to combat erotic excitement, whether due to excitable temperament, sedentary life, stimulant regimen, or the privation or excess of venereal pleasures, etc. He also finds it very useful in subduing the inflammatory accidents that so often accompany syphilitic

diseases, and which may be prevented by its early administration. It is pre-eminently useful when phymosis or paraphymosis, chordee, epididymitis, or adenitis are either present or feared.—*Rév. Méd. Chir.* XVIII., 355.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

PARIS, July 22, 1856.

THE striking differences which seem to exist between the genital organs of males and those of females in the superior classes of animals, and the differences which seem also to exist between the products of the secretion of the ovaries and that of the testicles, are merely appearances, and not true differences, according to two papers which have just been published here. In one of them, Professor Serres tries to prove that the series of metamorphoses which takes place in the seminal fluid, takes place also in the product of secretion of the ovaries. In the mother-cells of the semen, M. Serres finds the three elements of the primitive ovum, *i. e.*—1. An outside vesicle (the mother-cell of previous anatomists); 2. A small enclosed cell, corresponding with the germinal vesicle of the ovum; and, 3. A nucleus in this small cell, corresponding with the germinal spot of the ovum. The duplication of the enclosed cell in the semen takes place in the same manner as that of the germinal vesicle. In the semen, the cleaving of cells is spontaneous; but, in the ovum, the cleaving of the germinal vesicle is not spontaneous, and takes place only after fecundation.

In a paper, communicated last week to the Société de Biologie, M. Charles Rouget, one of the most distinguished of the young French anatomists, has begun the exposition of researches upon the analysis between the male and the female genital organs. The object of this first paper is to show that the round ligament corresponds exactly with the gubernaculum testis. In point of structure, these two organs are alike; they are composed of blood-vessels and nerves coming from the same sources, and we find in them both striated muscular fibres coming from the same muscle. Besides these, there are many unstriped muscular fibres in the two organs. The analogy of these organs is very evident when we compare their mode of development in embryos. M. Rouget grounds his views on this subject upon researches made, not only on man, but on a great many species of mammals.

A communication, made by M. Cloez to the Académie des Sciences, shows that the re-agent employed to detect ozone in the atmosphere may lead to erroneous conclusions. This re-agent, iodide of potassium, may give the same reaction as with ozone, when it is exposed to the evaporation of nitric acid, and to the emanations from resinous trees and aromatic plants.

A strange report, made by Professor Piorry, at the Académie de Médecine, has attracted attention. A M. Poggioli had addressed a paper to the Academy, in which he pretends to have cured neuralgia by frictions with the following ointment:—Extract of belladonna 8 parts, chlorhydrate of morphia 1 part, poplar ointment 32 parts, fresh lard, in which leaves of various plants have been macerating for some time, 53 parts, and a sufficient quantity of lavender water. Professor Piorry, to the astonishment of his colleagues, has given his support to M. Poggioli, although this compound medicine has been successfully employed only in two cases by the learned Professor. He has admitted as true all the assertions of M. Poggioli, and spoken of many miraculous cures, as if they were perfectly authentic. He proposed to the Academy to have the paper of M. Poggioli published in its *Bulletin*, but the Academy declined doing so.

M. Collin has read a paper at the Académie de Médecine, in which he tries to prove that the pancreatic fluid is not necessary to the digestion of fatty substances, and to the production of chyle. In large animals, he placed a tube in the pancreatic duct, so as to have all the liquid secreted by the pancreas thrown out from the body. The examination of the chyle, drawn from the upper part of the thoracic duct, showed that it was normal, both in quantity and quality. This fact is not, as M. Collin says, in opposition with what is admitted now. Herbert, Bidder, and Schmidt, and others, had already found that, after the expiration of the pancreas, or the ligature of its duct, the digestion and absorption of fat continue to take place. Besides, Professor Cl. Bernard has found that Brunner's glands are nothing but small pancreatic glands; and that they act upon fat exactly as the pancreas does. It is very clear, therefore, that fat is digested and absorbed when the fluid produced by the large pancreas is no longer thrown into the digestive canal.

M. Godelier has read an interesting paper on typhus, at the Académie de Médecine. The principal object of this paper is to show, that the typhus of armies is the same disease as the *morbus petechialis* of Hildenbrand, and as the common typhus fever of Great Britain. He shows also, what was unknown in France, although so well known in England, that typhus and typhoid fever are two different diseases.

M. Briquet has read a paper on the elimination of quinine, at the same Academy. He has found that quinine passes very quickly into the urine. In half-an-hour after it has been ingested it is found in the urine; but the complete elimination of a dose requires many days. Urine seems to be the only secretion with which quinine is eliminated.

Dr. Brown-Séquard has shown to the Société de Biologie, that almost all the excretory ducts of glands, in birds, have rhythmical movements. Already Professor Claude Bernard had found that the choledochus and the pancreatic ducts have such movements.

Dr. Brown-Séquard has shown that the same thing exists in the vasa deferentia in adult birds. The movements in all these ducts are perfectly regular, and their rhythm seems to have no constant relation with that of the heart. He has ascertained that the number of contractions of each of these ducts in a given time, is not the same in one of them as in the others. The left vas deferens has not its contractions at the same time as the right. When the spinal cord is destroyed in all its length in a decapitated bird, the rhythmical movements continue for some time in the choledochus, pancreatic, and urinary ducts, and in the vasa deferentia, as well as in the heart. If the heart is taken away, all these excretory ducts still have, for a few minutes, strong rhythmical contractions. Dr. Brown-Séquard points out also the existence of rhythmical contractions of the trachea and bronchiæ in large sea-birds at each expiration. These contractions, which diminish the calibre of these tubes, contribute to the expulsion of the air.

GENERAL CORRESPONDENCE.

THE POOR LAW MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I shall feel obliged by your inserting this letter, and a copy of the letter I forwarded to the Poor-law Board, July 23rd, that your readers may understand how affairs are proceeding with the Union Medical Officers.

The forms sent with it are ruled in a similar manner to those now in use, but the lines are continued on the opposite sheet; so that at one glance the progress of the case may be seen for seven, eight, or ten weeks. In case any objection should be made to change the size of the present book, I have ruled one for the same covers, and it is headed as follows:—Name. Age. Residence. Nature of Disease. Week ending ——. Necessaries ordered to be given to the patient, or observations (the last two headings are repeated for seven weeks' entries). Duration of each case in days. Distance in miles from Surgeon's residence. Termination of the case, or carried on.

The three following forms are on paper, which will make the book three and a-half inches longer than the present one, and give to each patient a line of three feet in length, and is ruled for the following headings:—

Form 2.—No. of case. Name. Age. Residence. Nature of disease. Week ending ——. Necessaries ordered to be given the patient, observations (the three last headings are repeated for seven weeks' entries). Present state or termination of the case.

Form 3.—No. of case. Name. Age. Residence. Nature of disease. Week ending ——. Necessaries ordered to be

given to the patient, or observations (the two last headings are repeated for eight weeks' entries). Duration of each case in days. Distance in miles from Surgeon's residence. Termination of the case.

Form 4.—No. of case. Name. Age. Residence. Nature of disease. Week ending ——. Necessaries ordered to be given to the patient, or observations (the two last headings are repeated for ten weeks). Termination of the case.

It is possible that better forms might have been suggested, but I thought it desirable not to introduce greater change than is absolutely necessary, fearing that if we ask too much, the Board would only "*take it into consideration.*" I have every reason to believe that great good will accrue from our Petitions to Parliament, as the numerous letters forwarded to me from the local Secretaries convey the information that the various M.P.'s whom they have addressed are perfectly astonished at the paltry sum we receive for our incessant labours, and promise their support next Session, should the Poor Law Board persist in refusing adequate payment.

Two hundred and nine Petitions have been presented to Parliament, and the same number of Memorials to the Poor Law Board, and possibly others also without my knowing it. These, however, represent upwards of one thousand men, a phalanx sufficiently powerful to effect much next session, should we be obliged again to appeal to the House of Commons, but I trust the three hundred and fifty-five Unions now on my list, and others also, will join in any future proceedings, and that no trivial objection to the mere wording of a Petition will cause any one to withhold his name from it, but that each will view it as a whole, and consider the general good only. Money is not in actual request at present, but I should certainly advise gentlemen to forward their subscriptions, in order that the Committee, with ample funds at command, may be in a position to pay current expenses, and at any moment to renew the contest. A majority of the Unions have not contributed their mite to the cause, many having signed the Petitions without subscribing, and others the reverse; but when I publish the list, I hope this curious anomaly may be less apparent. I am, &c.

Richard Griffin.

12, Royal-terrace, Weymouth.

My Lords and Gentlemen,—I received a letter from your Honourable Board, June 20th, acknowledging the receipt of the memorial signed by one hundred Medical men; in this letter you say, "As regards the request that the Board will, in order to lighten the burden of the arduous duties of Medical Officers, direct the alterations recommended to be made in the form of the weekly return, the Board have carefully considered the proposal, but are of opinion that the alterations suggested cannot properly be made, consistently with the due attainment of the object for which the return is required." I have communicated this reply, through the medium of the Medical journals, to all the Union Surgeons and am not surprised to find that it has caused much regret, strengthening as it does the belief, openly expressed by many, that the grievances of the Union Medical Officers are little heeded by your Honourable Board. In this opinion, however, I cannot at present concur, believing that the result of your deliberations has been arrived at by viewing the Amersham weekly return sheet in its present form only, which was not intended by the memorialists, it being referred to simply as one that prevents the useless labour of rewriting the names weekly, and under the impression that any other having the same end would answer equally well. In quoting the Amersham weekly return sheet, it was thought that no objection could possibly be offered, it having already been stamped by the approval of your Honourable Board for the last twenty years, which of course would not have been the case had it not satisfactorily carried out your policy in that district.

I can now only account for its rejection by assuming that it is your determination to lay down a uniform system throughout the kingdom, and with this view I venture to submit four forms for your consideration, trusting that one of them may be admitted into the extensive reform so much needed, and which we confidently hope you have in contemplation. The weekly re-entry of the names is decidedly objectionable for all statistical purposes, and is proved to be a great hardship, by the fact, that not only has a Memorial on the subject been presented to you by a large meeting of Medical men, assembled from all parts of the kingdom, but the prayer of it has been reiterated in other Memorials from upwards of two hundred Unions, representing the opinions of from one thousand to fifteen hundred of your Officers. I need scarcely add, that the adoption of any one of the forms now submitted to your notice, will be a great saving to the nation, and contribute to the relief of the Union Surgeons. I will not now refer to the other part of the Memorial, as I trust before long I shall have the pleasure of hearing from you that your honourable Board has decided to enforce a just and uniform system of payment throughout the kingdom, as the law empowers you to do, and thus prevent our body petitioning Parliament on the subject next Session.

I have the honour to be, my Lords and Gentlemen,

To the Poor-Law Board. Your obedient servant.

"IS CHOLERA A CONTAGIOUS DISEASE?"

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you give me leave to say a very few words on a pamphlet just published by Mr. Churchill, in which, though my name is not mentioned, I observe that a statement is called in question upon mere hearsay evidence, which was made by me in full personal knowledge of all the facts of the case?

You will perhaps think that I had better not enter the lists with such a doughty champion as Dr. MacLoughlin, but his last essay "comes in such a questionable shape," "Is cholera a contagious disease?" that for the sake of the younger members of our profession, who are apt to be led away by an array of facts (?) and figures and a display of 124 cases, I am tempted to make a few observations, premising that I do not mean to enter into any controversy at all on the subject.

First, as to the value of the whole collection of cases, I would refer the reader to "A System of Logic," by John Stuart Mill, Book III. Of Induction. Chap. III., sec. 3., in which will be found an illustration of the assertion, that, under certain circumstances, "Myriads of concurring instances, without a single exception known or presumed, go such a very little way towards establishing an universal proposition." We have, in general, such very vague ideas of the process of induction, that we are ready to conclude that the man who penned such an assertion, meant to set the Baconian method at defiance! It is quite the reverse: he is a sincere follower of that school of Philosophy; and when my reader has made himself master of that chapter, he will be able to set the exact value on the 124 cases brought forward to prove that cholera is not contagious.

I might stop here, but as I claimed a short space in your columns because of the incorrectness of one of the conclusions arrived, etc., I must show in the next place how very little value is to be assigned to each of the cases singly, when based on such hearsay evidence as is brought forward. The case is marked 107, is very incorrectly stated, and concludes with the question "Is this a decided case of cholera, or one of consecutive diarrhœa?" The people of the house happened to mention to me that a Medical gentleman had been there to make enquiries, and had told them it was not a case of cholera at all! Now, it seems to me strange, that Dr. MacLoughlin should speak so much of "researches at the bed side" (pp. 10, 12, 13, &c.) and then proceed to statements founded solely on the reports of others, chiefly not medical, after the patients were dead and buried! I have no hesitation in saying that if there were any cases of cholera in London in 1855 that case was one.

Why, it may be asked, was it alone called in question? For a very good reason. He was told that the man only vomited once, and did not appear to suffer more from cramps than usual; and at page 5, we find his definition of cholera to be, "vomiting, spasms, etc." I decline to enter into the question whether that man had "vomiting and spasms;" I only say he had cholera, and I believe that Dr. M'Loughlin is, perhaps, the only man in London who does not consider the rice-water stools, the very peculiar form of bowel-flux, or diarrhœa, as he calls it, as much a part of the mysterious whole, called cholera, as "vomiting, spasms, etc." I have long been puzzled to know what "premonitory diarrhœa of a few hours" meant. I now understand it, and by it I understand how facts must bend to theories. I am, &c.

A. Whyte Barclay, M.D.

Bruton-street, July, 1856.

KING'S COLLEGE HOSPITAL APPOINTMENTS.

[To the Editor of the Medical Times and Gazette.]

Sir,—We provincials are necessarily dependent upon your columns for our knowledge of the doings of the London Medical world, since our departure thence diplomatised. Among other things, we watch your "Appointments" with much interest. Your last week's impression contained a long list of them; and, for my part, I esteemed the first five as very happy and judicious selections; not so those under the head, "King's College Hospital."

Of the two Assistant-Physicians the worst I have to say of them is but negative blame, viz.: that I never till now heard their names (although recently myself a sixth year student in town), while, in common with every "King's" man of the last ten years, I could name a young F.R.C.P. and F.R.S., of well-known talent, and genius of the first order, who is now at another school, but ought to be adorning his Alma Mater. Whose fault this is I know not, but have reason to know it is not his own.

But let us to the new Surgeons. The "considerable disappointment" of your leader on this subject is much too tame for us; it should have been "infinite disgust," for such I am convinced will be the all but unanimous sentiment of those ("King's" men or otherwise) who know Mr. Henry Smith, when they learn that he has been passed over in the filling up of vacancies in his own Hospital. You are more happy in your phrase which designates him "a most zealous cultivator of the art and science of Surgery;" but had you had my opportunities of seeing him in the practice of the art, excising the vesical calculus, or ligaturing the external iliac, you would, I am sure, have interpolated the appellative "successful" before the "cultivator."

One of the two men appointed I know to be, and the other I have heard is, a good man; but, what of that? Smith is their senior by some years; and, as a contributor to the advancement of Surgery, greatly their superior. What, then, is his sin, that he is not admitted to the field proper for his exertions, and due to his standing and attainments?

We, in the country, know nothing of how these things are managed in town; but when we see such great blunders in the administration of affairs in a public Institution in which we take an interest, we naturally suspect foul play, and our gaze as naturally falls upon those whom we know to be in high places; and who, being Professional men, must know full well the merits of the several candidates, and must err wilfully if they select the lesser lights. We can at least fearlessly express our opinion of such proceedings, and may perhaps have other opportunities of revealing our sentiments.

Apologizing for the length of this communication,

I am, &c.

Rugeley, July 28, 1856. D. Henry Monckton, A.K.C.

THE INDIA MEDICAL SERVICE.

[To the Editor of the Medical Times and Gazette.]

Sir,—I perused with great interest a leading article in your December number of 1855, on "The Indian Medical Service," and am induced, albeit the thermometer is at 96° in the shade, to put together a few remarks for the benefit of such young men as are panting to come out here.

In England, all the advantages are glaringly held out, such as £300 a-year immediately, and £500 a-year retiring pension after seventeen years' service, with many collateral advantages. I confess I was caught by these, and the heat forbids my giving vent to the indignation I feel at the swindle.

The pay and allowances of an Assistant-Surgeon are those of a lieutenant in the line, (about £280 a-year); but a lieutenant in the line is infinitely better off, and for two reasons—he has not £5 deducted from his pay every month, towards a fund which we are obliged to subscribe to, whether we will or not; and, secondly, he is stationary with his regiment, whereas an Assistant-Surgeon, during his first two or three years, is marched about in really a wonderful manner. During the last six months I have made six marches, all independent of each other; when I commenced, I had £200 in the hands of my agents; when I left off, I found I owed them £36. For this I have not received one farthing from my honourable masters; nor am I, as you might suppose, an extravagant man; my establishment is exactly that of a subaltern—three or four servants, one horse, and a tent. A married Assistant-Surgeon of my acquaintance, who, like myself, has had a fair share of marching about, I knew a short time ago was actually indebted to his brother officers for food, so completely was he cleaned out, and so totally inadequate was the pay he drew to support the expenses he was put to on service. The Directors are very careful such a state of things shall not occur to a civilian; that Bahadoor, should he move but a mile out of his district, draws immediately so much a mile, albeit his salary shall be £1200 a-year; and assistant-ministers of the Scotch kirk, whose salaries are £960, draw mileage like civilians, as do also assistant-chaplains. Why should not Assistant-Surgeons? In fact, the Profession at home will be pleased to hear we are the worst-paid *employés* of the Company. Even Veterinary Surgeons are much better paid than we are, and if any one reading this is obstinately bent on coming out here to cure, let him by all means study equine Surgery in preference to human pathology.

Well, I fancy some will say—"I'll put up with all this for £500 a-year retiring pension after seventeen years' service." This leads one naturally enough to another question—Where are we to get the £500 a-year after seventeen years? Who is to give us that charming little pension, suggestive of a rural retreat in some snuggery in England? No one knows out here, but, perhaps, if you ask in Leadenhall-street, they can tell you. Seventeen years' service entitles you to £192 a-year, but the remainder, I imagine, alludes to an indefinite chance one has, of some day getting an annuity from our fund of £240, but to obtain this one must pay in subscriptions £1200; and the average number of years' service of those who obtain the annuity is twenty-five. So that, you see, you sink a tolerably large quantity of money for the chance of obtaining a small income, at the end of a quarter of a century—a most provident foresight!

In fact, an Assistant-Surgeoncy in the H.E.I.C.S. is fairly equal to this:—an income of about £300 a-year for seventeen years, no chance of promotion, a wretched climate, a listless existence, rewarded with £192 a-year pension.

My object in sending this to you is, that all the advantages of these splendid appointments should be fairly made known to the aspiring youth of our Profession; so that, before a young Surgeon pays the Peninsular and Oriental Company £120 for his passage, and his tailor £150 more for his outfit, he shall know for what he is parting with his money; to give him courage, too, when he embraces his mother and sisters for the last time; that the prospect of such splendid fortunes may nerve him as he bids adieu to his hearth and home.

I am, &c.

An Assistant-Surgeon, H.E.I.C.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 24, 1856.

Cæsar Hawkins, Esq., President, in the Chair.

ON ENCEPHALOCELE, BEING THE HISTORY OF A CASE, WITH A TABULAR ANALYSIS OF SEVENTY-FIVE CASES.

By JOHN Z. LAURENCE, F.R.C.S.,
Surgeon to the Northern Dispensary.
(Communicated by Richard Quain, F.R.S.)

The author remarked that congenital hernia of the brain was a rare malformation, and that it was a still rarer circumstance for the subject of it to live for any length of time, especially when the protrusion was large. In the present case the tumour equalled in size the child's head, yet life was prolonged for 144 days, and in that respect it formed a more remarkable case than any which the author had met with in his researches for his table. The mother was healthy, and had previously given birth to five healthy children. The labour was natural; the child a female. At birth the tumour was not quite so large as the head. When first seen by Mr. Laurence, two months and a-half after its birth, it presented a conical tumour as large as its head, apparently originating from the occiput

and nucha, and measuring five inches and a quarter in length and three inches and a-half from side to side. The walls of the tumour were very thin; it fluctuated freely to the touch, was very transparent, but there was no pulsation perceptible. The child had a vacant, idiotic aspect, was to all appearance blind, but was started by any sudden noise; the limbs were not paralyzed; it was found dead in bed beside its mother. On examination after death, the tumour was found to contain the entire cerebellum and a portion of the cerebrum; these parts had been protruded through an opening in the occipital bone, which was oval in form, continuous with the foramen magnum, and measured (including this latter) two inches and a-quarter from before backwards, and one inch and a quarter across. The paper was accompanied with a valuable analysis of seventy-five cases of this malformation, divided into three tables—the first, containing an analysis of fifty-three cases of encephalocele occurring in the occipital region; the second, an analysis of seventeen cases occurring in the frontal region; the third, an analysis of five cases occurring in the parietal and temporal regions. The dates of the cases ranged from 1677 to 1853.

TWO CASES OF MALFORMATION OF THE HEART.

By HANNOLLE VERNON, M.D.

[Communicated by SPENCER SMITH, Hon. Sec.]

The first of these cases was that of a child, which exhibited hardly any indications of life for several minutes after birth. It ultimately respired freely, but gradually became blue, and about an hour after birth relapsed into its usual feebleness; the pulse became weaker, slower, and intermittent, and two murmurs, corresponding with the first and second sounds of the heart, were heard. The child died four hours and a-half after birth, having been previously convulsed. On examination, the septum of the auricles was found imperforate, there being only an oval depression in the site of the foramen ovale. The tricuspid valve was incompetent, forming only a festooned diaphragm between the auricle and ventricle. The right ventricle gave origin to two vessels—one the pulmonary artery, which had no communication with the aorta; the other the aorta itself, and the septum of the ventricles was deficient at the base. The pulmonary artery was smaller in calibre than usual. The left auricle was small, and the lungs very imperfectly inflated. The author remarked that the peculiarity of the circulation before birth in this case was, that in consequence of the imperforation of the septum of the auricles, the head and upper extremities received blood of similar quality to that transmitted to the trunk and lower extremities. After birth there were—1st, regurgitation from tricuspid incompetency; 2nd, admixture in the aorta of venous and arterial blood, from imperfection of the septum ventriculorum; and 3rd, deficient supply of blood to the lungs, from narrowing of the pulmonary artery and propulsion of venous blood into the aorta.

Case 2.—In this case the child died eight days after birth. After having presented nothing unusual, it was suddenly seized with difficulty of breathing, became livid, and died convulsed. The septum of the auricles was found to be very imperfect. The left auricle was very small, received only two pulmonary veins, and had no communication with any other cavity than the right auricle, to which, indeed, it formed a mere diverticulum. The ventricular portion of the heart was single, and did not present any appearance of a septum. It gave origin to a single vessel, much larger than the aorta generally, from which two pulmonary branches were first given off. At the commencement of the arch a third vessel arose, which shortly divided into the innominata and left carotid and subclavian arteries. The aorta then pursued its usual course. A small vessel arose from the innominate artery, which, after proceeding some distance towards the heart, became imperforate. The lungs were very imperfectly expanded. The author remarked that the course of the circulation before and after birth would appear in this case to have been the same. In consequence of the non-communication of the left auricle with the ventricular cavity, the right auricle was the recipient of aërated blood, whether from the lungs or placenta. From this cavity the blood passed into the general ventricle, and thence through the general aorta. The pulmonary arteries were wholly inadequate to transmit a sufficient quantity of blood to the lungs, and, indeed, after birth a small proportion only of the blood became aërated. The author remarked on the rarity of malformations of the kinds of which these cases afford examples, and concluded his paper with some observations—1st, on the connexion between malformations of the heart and an atelectasic condition of the lungs; 2ndly, on the mode of death in cases of malformation of the heart; and 3rdly, on the relation of cardiac abnormalities and cyanosis.

AN ACCOUNT OF THE ARRANGEMENT OF THE MUSCULAR SUBSTANCE IN THE URINARY AND CERTAIN OF THE GENERATIVE ORGANS OF THE HUMAN BODY.

By GEORGE VINER ELLIS, Esq., F.R.C.S.,
Professor of Anatomy in University College, London.

It would be vain to attempt to represent this important communication by an abstract; all that can be done is to draw attention to some of the most striking points in it. After a minute description of the three more or less perfect strata of involuntary muscular fibres which constitute the muscular substance of the bladder—viz., an external or longitudinal, a middle or circular, and an internal longitudinal or submucous, stratum—the author proceeds to trace them through the rest of the genito-urinary apparatus. With respect to the prostate, after a very minute description of its structure, the author deduces that it is less of a glandular than of a muscular body, and is only a largely developed portion of the circular muscular layer that invests all the urethra behind the bulb or spongy portion, and which is continuous, without interruption, with the circular fibres of the bladder. As the prostatic enlargement includes only part of that muscular stratum of the urethra, the author proposes the name *orbicularis, vel sphincter urethræ*, for both the prostate and the prolongation around the membranous portion of the urethra; while he would confine the old term *prostate* (without the word *gland*) to the thickened and more powerful part near the neck of the bladder. The submucous layer of the bladder is traced throughout the whole length of the urethra. A muscular covering of the vesiculæ and vasa deferentia, consisting of two layers of fibres, (one longitudinal, the other transverse,) is next described; and the paper concludes with a very elaborate description of the sheaths surrounding the spongy structure of the penis.

Mr. Quain was very glad that Mr. Ellis, of whose accuracy the Profession might be assured, had given so good a description (which had long been wanted) of the muscular structure of the prostate gland, and he should be glad to see, from the same pen, or from some other, an account of the glandular structure.

ON MERCURIAL FUMIGATION IN THE TREATMENT OF SYPHILIS.

By HENRY LEE, Esq., F.R.C.S.
Surgeon to King's College Hospital, and to the Lock Hospital.

After giving a sketch of the early history of fumigation in syphilitic complaints, its use, abuse, and abandonment, chiefly on account of the cumbrous and inconvenient apparatus employed, the author proceeded to notice the more modern procedure recommended by Mr. Langston Parker. He then pointed out the practical objection to the use of the grey oxide of mercury, arising from its very uncertain composition as procured from the shops, and finding from experience that it was the light-coloured oxide alone which volatilized and produced its effects upon the constitution, and having reason to believe that the light colour was due to the presence of calomel, the author performed a series of experiments with calomel alone, or mixed in a certain proportion with the grey oxide, the general result of which went to satisfy him, that for the purposes of mercurial fumigation, 5 or 10 grains of calomel alone, are, in ordinary cases, quite sufficient; and that when the grey oxide is used, the admixture of a few grains of calomel will facilitate its sublimation, and insure its medicinal action. Upon making comparative trials with the calomel alone, and combined with steam, (as in Mr. Parker's apparatus,) it was found to act more certainly and with greater regularity in the latter case. The following simple plan was suggested by the author: Two small spirit-lamps are used; over one of them is a thin metallic plate, upon which the calomel is placed; over the other a cup of hot water. The patient sits upon a cane-bottomed chair, placed over the lamps, enveloped in a blanket; or, if greater economy be necessary, the patient may heat a thick tile in the fire, place it in a night-stool, with a gallipot of hot water upon one corner of it, sprinkle the calomel over the surface of the

tile, and sit over it enveloped, as before, in a blanket. The advantages of this simple mode of administering mercury to the system are, rapidity of action, while at the same time but little constitutional disturbance is produced, and all the severe train of symptoms of irritation and debility attendant upon the prolonged internal administration of the mineral are avoided. The small amount of heat used for the purpose of volatilizing the calomel in this apparatus constitutes the essential difference between Mr. Lee's mode of using the vapour of calomel, and any former trials with that form of mercury; for if the temperature be very high, the calomel is at once converted into vapour and dissipated. The paper was accompanied with a tabular view of twenty cases in which the grey oxide was used, either alone or in combination with calomel, and calomel was used alone, and shows the age, sex, form of disease, preparation of mercury used, and the time at which the mouth became affected by the fumigation; the result being, to prove that the patient's system can be as readily influenced by a small quantity of calomel in vapour, as by a large quantity of the grey oxide or bisulphuret of mercury.

In answer to the President, Mr. Lee stated that he generally fumigated the patient every night till the mouth was affected, and then every other or every third night, continuing the course as with the ordinary doses. He also stated, in reply to Mr. Pollock, that he found fumigation more manageable than rubbing mercury into the skin, and that the patients much preferred it.

Dr. Schulhof said he had seen many hundreds of cases successfully treated without mercury at all, especially in an establishment at Hamburgh, under M. Fricke, whose treatment was muriate of zinc and low diet.

Mr. Quain asked the author if he found the patients perspired much under his treatment.

Mr. Lee said, a certain amount of perspiration was produced, sufficient to favour the action of the calomel; excessive perspiration would rather interfere with the action. He considered it impracticable to treat successfully all cases of syphilis without mercury. Mr. Rose, from his experience in the army, published some accounts, in which he stated that he could cure the disease without mercury; but when his experience was enlarged, and extended especially to the upper classes, he returned to the use of that agent.

Mr. Quain said he had somewhat extensively used the plan which had been described. The Profession was indebted to Mr. Parker for having introduced it, and to Mr. Lee for his modification in the employment of calomel, which he (Mr. Quain) believed to be an improvement.

In reply to Dr. O'Connor, Mr. Lee said he recommended that the patient should not inhale the vapour, as serious symptoms had been occasionally produced by inhalation.

Dr. O'Connor had known a case in which difficulty of breathing, constriction of the chest, and other symptoms of an alarming nature, followed inhalation of the vapour. He had found, that the introduction of about fifteen grains of mercurial ointment into the rectum speedily produced salivation.

The President said he had seen instances at the Lock Hospital in which violent salivation had been produced in females by a single fumigation. The experiments of Mr. Rose, he believed, were made in the Guards' Hospital. Many other Army surgeons were induced to discontinue the use of mercury by way of experiment, but the authorities found that so many soldiers were in the hospital under the changed treatment that they were obliged to forbid it.

Mr. Lee believed that some of the Guards, under the treatment of Mr. Rose, occasionally purchased mercury of their own accord, and took it *sub rosâ*. (A laugh.)

Mr. Quain said he had visited M. Fricke's establishment at Hamburgh, and he believed that the paucity of bad sores in the cases in that town was attributable to the frequent examination of the women, who were taken in for the slightest complaint. At Berlin, where an opposite plan to that of M. Fricke was adopted, the cases were very bad. The patients were there rolled in blankets, confined in close rooms, and rubbed with mercurial ointment. There were two extremes, the non-mercurial and the extravagant mercurial methods. Of the two he preferred M. Fricke's plan, but the middle course was doubtless the best.

Dr. Schulhof said, after what he had heard, he believed his former experience was incomplete.

The President announced the intention of the Council to issue, every two months, a periodical containing accounts of the Society's proceedings, in addition to the annual volume of Transactions.

The Society then adjourned.

EPIDEMIOLOGICAL SOCIETY.

Monday, July 7, 1856.

Dr. Richardson read a paper on

PRINCIPLES OF THE INDUCTIVE PHILOSOPHY APPLIED TO THE STUDY OF EPIDEMICS.

Dr. Odling, Dr. Tripe, Mr. W. Rendle, Mr. Hunt, and Dr. Greenhow took part in the discussion, which was of a lively and instructive character. Dr. Richardson replied. A vote of thanks was accorded to the author of the paper for his production.

Dr. Babington read a letter addressed to him as President by the Committee of the Epidemiological Society, for supplying the labouring classes with nurses in the time of epidemic and other sickness, directing attention to the progress made by that Committee in regard to the applications to the Poor-law Board. The letter addressed to the Poor-law Inspectors, by the Poor-law Board, calling upon them to aid the Committee in their endeavours, was also read by the President.

The meeting was well attended by its members, and among the visiters present were several of the newly-created Medical Officers of Health.

Dr. Ansell, Dr. Challice, and Mr. H. Northover Pink were proposed as members, and Drs. Aldis and Tripe were elected members of the Society.

Dr. Von Iffland, of Beaufort, New Quebec, and Mr. W. Isidore Cox, were elected corresponding members.

It was announced, that at the meeting in August would be read the report (drawn up by Dr. Babington) on the Cholera which visited Her Majesty's Black Sea Fleet in the Autumn of 1854, compiled from the Returns of the Medical Officers of the Fleet to Queries drawn up by the Cholera Committee of the Epidemiological Society, and sent out by the orders of Government.

MEDICAL SOCIETY OF CONSTANTINOPLE.

The idea of forming a Medical Society at Constantinople having suggested itself to Dr. Pincoffs, of Dresden, Civil Surgeon, attached to one of the English Military Hospitals at Scutari, he appealed to the Medical men of the allied armies and to the resident Practitioners to assist in carrying out so laudable an object, and with success. A large number of Medical men met together on the 15th of February, 1856, and constituted themselves a Society, Dr. Baudens, the Inspector-General of the French Hospitals here, being elected President. The intention of the Society was considered at this first meeting, and a few were appointed to draw up the rules. The first subject for discussion and consideration was to be that of the typhus affections which have reigned in the allied armies during the war.

At the second meeting, which took place on the 1st of March, the different officers were elected. President—Dr. Baudens, Inspector-General of the French Hospitals; Vice-Presidents—Dr. Linton, Inspector-General of the English Hospitals; Dr. Fauvel, Member of the Board of Health, and Professor of the School of Medicine here; General Secretary—Dr. Pincoffs; Special Secretary—Dr. Leval, Member of the Board of Health; Treasurer—Dr. Morris, Physician to the Prussian Legation and the German Hospital.

Since the formation of the Society the number of members has greatly increased, and reckons at present about eighty. An address was made to the Minister of Foreign Affairs, Fuad Pacha, for the purpose of having the Society recognized by the Turkish Government as Imperial, and it seems that the chances are greatly in favour of its ready accordance.

At the sitting of the 15th of March, Dr. Fauvel in the Chair in the absence of the President, after the reading of the *résumé* of the former meeting, Dr. Cazalas, Physician to one of the French Hospitals, opened the question of the typhus affections, as proposed by the Society, by reading a

lengthened paper on the subject. He commenced by stating that all the Military Hospitals at Constantinople received from the Crimea sick of the same character, but that, nevertheless, each particular establishment ought to exercise a special influence upon those placed there for treatment. He proposed, therefore, to consider what was most evident to him in the Hospital over which he presided, without occupying himself with what occurred elsewhere, being persuaded that, from united observations of all, the true character of the actual reigning diseases may be determined. M. Cazalas divided his remarks into three parts:—In the first he stated what he understood by typhus; in the second, a statement of the observations collected in his Hospital; and in the third, the conclusions at which he had arrived. He accepted the definition of typhus as given by Hildenbrand, stating the periods and symptoms which according to that author characterized the disease, but remarked that, since the publication of Hildenbrand's work, many other serious diseases which have not much analogy with typhus have been classed with it, so that, at present, the name "typhus" expresses rather a gender than a species, and it becomes necessary to add the name of the author describing the disease, or the locality and period at which the epidemic reigned, to avoid confusion. Without contesting the existence of typhus either in the Crimea or in the Hospitals, he affirmed, on his part, that he has not met with it in a general manner, and expressed a hope that the details into which he should enter would prove that the reigning diseases, generally speaking, are but typhus or typhoid states engrafted on other diseases, or typhoid affections occurring in individuals exposed to the service of the sick. Passing from the symptoms to the examination of the causes, M. Cazalas admits that typhus is due to an animal miasmatic intoxication resulting from the overcrowding of healthy or sick, or to the putrid decomposition of animal detritus. He admits also contagion, not by immediate contact, but by infection or the presence of an infected atmosphere; not that the absorption of the same gives rise directly to the disease; the affected transmit the germ to healthy individuals, which germ infects them gradually, and prepares them for the irruption of the disease. Nevertheless, the disease does not always manifest itself after the infection; and where it does happen, it is the consequence of some determining cause. Debility, and the existence of some disease, play an important part in the production of typhus as predisposing causes, the most common determining cause being sudden and severe atmospheric changes. M. Cazalas remarked, that among different authors who had studied the anatomical lesions of typhus, some found the intestinal lesions constant, some have met with them only accidentally, and MM. Pellicot and Fleury not at all. Others of the modern authors have sought whether typhus produced the lesions of typhoid fever, and, according to the nature of the observations they have made, they have concluded as to the identity or non-identity of the two diseases. The author, however, did not consider that the problem should be circumscribed in a single anatomico-pathological phenomenon, but that both lesions and symptoms should be considered together. In epidemics, then, of this character, a certain number of cases take the form of typhus, and *vice versâ*. Some of those affected by typhoid fever do not shew any traces after death; the intestinal lesion exists sufficiently often after typhus; the two diseases sometimes manifest themselves after the affection of the intestines has run its course; sometimes this same lesion exists without producing either typhus or typhoid fever; lastly, in the different epidemics of these two affections, it has not always been constant. M. Cazalas considers typhoid and typhus fever to be due to the same cause; that the symptoms and progress of the two diseases are in basis identical; that the incubation in both is more or less long according to the activity of the morbific cause, or the power of resistance in the system. The first effects of the intoxication are seen in the typhus eruption, and the alteration of the solids and fluids. If it take place slowly, the eruption occurs before the invasion of the disease, which takes the typhoid form. On the contrary, if the disease declare itself from the commencement of the infection, before the intestinal eruption,—the invasion is sudden, the march rapid, and typhus the result. M. Cazalas draws an analogy from what takes place here and what is observed in intermittent fevers; for his part, the mild form of typhoid fever is to typhus what simple intermittent fever is to pernicious fever. As to the objection, that typhoid fever manifests itself even in houses the most healthy, and where no animal infection exists, and that intermittent fevers are seen without vegetable miasmata, he observes that this interpretation is gratuitous, for everywhere vegetable miasms are disengaged, and animal exhalations, more or less marked, are found even in the most salubrious houses. The author now passed to the second part of his memoir, and divided into two categories the sick who were the subject of his observations. Those, which were the most numerous, were from the Crimea, and those who belonged to the service of the Hospital where they had contracted the disease. Touching the first, he related their conditions in the Crimea, and then in the Hospital where they were received. In the Crimea existed a series of debilitating causes: diarrhœa, dysentery, intermittent fever, scurvy, predominating and infecting nearly all. To this he adds cold, and morbific gases arising from the decomposition of animal and vegetable matters, doubtless insufficient to produce a typhoid epidemic or intermittent fever, but sufficient to introduce their elements into the total of other diseases. The cold may act either directly upon the system already debilitated, or indirectly, by preventing the men from breathing the purer air from outside, so necessary where the blood-changes have been compromised by scurvy. So that before they become really ill they are attacked by a scorbutic cachexy, to which are now added the intermittent and typhoid elements. From the necessities of war, situated in overcrowded barracks, or in unhealthy and imperfectly warmed tents, obtaining only a part of the fair necessaries of life; and under this forced condition, it is not surprising should typhus reign or aggravate other affections. Arriving at Constantinople, the conditions of the sick become changed, and relatively more favourable. (Here M. Cazalas described the establishment over which he presides, and considered it sufficiently satisfactory, with the exception of being unable to warm certain parts. Since the month of December, the typhoid conditions were apparent, and in January increased; so that in February, in 1560 sick, 196 presented these conditions. Nearly all those attacked had scurvy, and many of them other affections also; 22 died from the direct consequence of these affections. The general sum of the deaths was 167. The mortality thus appears for typhus as $\frac{1}{7}$th; but in nearly the half of these cases, the death would have happened without the typhus complication; so that the mortality from typhus may be stated at $\frac{1}{10}$th or $\frac{1}{12}$th. To give greater value to this approximative calculation, M. Cazalas stated the mortality in 1855 to have been given at 15 per cent. while actually it was only 10·70; while in that year the typhus conditions were less numerous and less serious. Reducing to calculation the attacks in the different parts of the establishment, he comes to the conclusion that the overcrowding and defective aëration were valueless in the generalization drawn from typhoid conditions, since, in spite of the diversity of circumstances, and of different localities, the cases have been comparatively few in the wooden huts, where the ventilation was considerable. Moreover, he remarked that the disease did not manifest itself by passing from one to the next in the line of beds, and that the disease was not propagated by direct contagion; but that sudden and marked atmospheric changes had a decided influence over the disease, a view which he confirmed by comparing the range of the thermometer with the sum of the attacks during a certain time. The analysis of the phenomena appeared simple to M. Cazalas, and he compared it to what often follows from cholera or pernicious fevers, when death does not rapidly arrive—viz., a typhoid state. In the sick from the Crimea, the scurvy produced a serious alteration in the fluids, and a diminution in the vital force of the tissues; so that passive congestions arise as in cholera. Or, if care be not taken in the reaction, or it become too great, the congestions become more active, occasionally inflammatory in character; and this congested state of the organs leads to the typhoid state. As in cholera, so the treatment in scurvy consists principally in avoiding all causes for violent reactions; for, should this happen, we find a series of phenomena to follow, which bear the greatest analogy to what takes place under similar conditions in cholera. Thus, a nutriment too abundant, too nourishing, or too stimulating, great alterations in temperature, each appears a powerful determining cause of the too violent reactions in the scorbutic, and typhoid phenomena follow. M. Cazalas concluded this part of his subject by reference to the anatomical lesions, which he found very various, those of the meninges being nearly constant, the injection of the pia mater

almost always present, and a more or less abundant secretion in the arachnoid cavity; while the lesions, independent of the typhus invasion, were the result of some preceding malady. The author described five different ways in which the disease manifested itself; sometimes it commenced slowly, with heaviness, headache, debility, stiffness of limbs, feverishness without intermittence; sometimes there is a marked intermittence in the symptoms, without any apparent fear for the result, till after the third or fourth paroxysm, when the case becomes serious. Occasionally, the convalescent is seized suddenly with all the symptoms of severe typhus; sometimes there is a violent cephalalgia, pains in neck and loins, spasmodic movements, contraction of pupils, and delirium with continued fever; sometimes in the course of twenty-four hours, the disease sets in, with some paralysis of motion, altered feelings, dulness, heaviness in head without headache, or only trivial pain there, and dilatation of pupils. The first form is observed in those whose constitutions have been only slightly debilitated—who have spent but a short time in the Crimea, the progress of the disease being analogous to that of gastric or typhoid fevers. In the second variety, which occurs in those affected by scurvy, the attacks seem to be without much importance, but very soon the disease is every way aggravated, and the patient dies in forty-eight, or even twenty-four hours. Sometimes the symptoms go on increasing until death; sometimes there is a remission, when, if we can prevent a fresh paroxysm, the typhus phenomena cease in a short time. This state of things the author of the memoir considers as a marsh fever of a typhoid form, which has taken on the character of a pernicious fever from the cachectic condition of the patient. The third form is regarded as apoplectic; it occurs without marked forewarnings, and in its progress is analogous to that kind of disease;—sometimes the patient dies rapidly; sometimes the serious symptoms disappear; and sometimes these active congestions pass into inflammation, with which appear the symptoms of typhus. This variety occurs chiefly in those whose systems are not much contaminated by scurvy. In the fourth form, which happens mostly in persons of vigour, the initial symptoms are those of meningitis, or some cerebro-spinal affection, either continued or remittent. In the fifth, or last, variety, it sets in with either serous or sanguineous apoplexy, and happens among the most cachectic, or where the constitution is much below par. Many of the convalescent relapsed, or were attacked with pleurisy, or congestions of the lungs, liver, and spleen, etc. The author considered these affections as due to the same determining cause, and places them as such, or forming part of the disease. Those connected with the service of the Hospital have furnished a large number of the patients, and a high figure in the mortality; still the author does not consider this as sufficient to show the existence of an epidemic of typhus. In his Hospital all the Medical men and the chaplain were more or less indisposed with symptoms of *embarras gastrique*, accompanied with cephalalgia, remittent or intermittent. All the sisters of charity were likewise ill; one died; the symptoms among them were those of typhoid fever or a remittent or intermittent gastric fever. Forty among the Hospital orderlies were also attacked; these died. The disease which, without distinction, attacked those connected with the direct or indirect service of the sick, was characterised by symptoms of severe typhoid fever, typhus fever, or meningitis; some among them by simple fever, or embarras gastrique. In all, the remittence or intermittence became an important element. M. Cazalas attributes the sickness of the Hospital orderlies to excessive fatigue, the overcrowding in their barracks, and the respiration of the miasmata given off from the sick. He observes that analogous effects follow wherever similar conditions exist, whatever might be the reigning disease; and he brought forward, in support of his statement, the case of these orderlies being attacked with symptoms of typhoid fever during an epidemic of cholera, in 1855, and not with cholera itself. The treatment adopted by M. Cazalas varied according to circumstances, and the nature of the disease. If gastric fever, or typhoid fever, he adopted the usual treatment. If congestion of the brain, then bloodletting in some form, etc. If the fever partook of a remittent or intermittent character, he considered quinine indispensable. When a paroxysm came on, he administered an emetic, and after its action a large dose of quinine. He particularly insisted on the use of the emetic, if the time permitted; if not, he gave the antiperiodic, and, after its absorption, made use of the emetic. A few purgatives were prescribed also, without interference with other means which any particular symptoms required. He considered the intermittent and remittent form as the most frequent, and stated that, in nearly all the cases of continued fever, intermittence was observed in some period of the disease. Sixteen patients were taken at random; nine were treated with sulphate of quinine; there was no exacerbation on the morrow, and their condition seemed much meliorated. The others were treated after the expectant method, the paroxysms took place with aggravation of the cerebral symptoms. He also brought forward the observations made by M. Fauvel, where success followed the use of quinine among the sick of the Turkish army, where there was a remittent form of disease, accompanied with symptoms of typhus complicated with jaundice.

In the third part of his memoir M. Cazalas drew the following conclusions:—

1. Identical in their bases, typhus and typhoid fever only differ in form.

2. That the typhus, properly called, and common to the Crimea, and in some of the Hospitals of Constantinople, did not exist in his, except in isolated cases which scarcely differed from the ordinary typhoid fever.

3. That the diseases which occurred among the convalescents from the Crimea were sometimes gastric or typhoid fevers—or typhus; sometimes cerebral congestion, meningitis, active or passive effusions in the brain, sometimes intermittent or remittent.

4. That the patients were all suffering from scurvy, and very often from chronic diarrhœa.

5. That the different affections rarely run through their course without the complication of intermittence or remittence; and those which have already these characters have a great tendency to pass into a continued form.

6. All these affections tend equally to take on a typhus or typhoid state.

7. The pathological conditions resulting from the blending of so many elements are very complex. Scurvy is nearly always the base, while the gastric, intermittent, and typhus elements enter the most often into their composition; the gastric and intermittent being the most important in a therapeutical point of view. If these be met promptly and efficaciously, the typhus element speedily disappears; the scurvy symptoms disappearing on the arrival of serious and acute affections, to re-appear and persist after their removal.

8. These morbid states are, for the most part, neither typhus nor typhoid fever; they are accidental complications, in which the typhus is only secondary, and determined among those cachectic, or ill from attacks of fever, or too violent reactions for organs already debilitated by scurvy, and a vegetable or animal miasma.

9. They follow only exceptionally a straightforward course, with the constant symptom of stupor with delirium, like typhus; then they offer in general the appearance and progress of typhoid fever, and the autopsy presents the lesion which characterizes that disease.

10. The predisposing causes are cachexy from scurvy, animal and vegetable miasmatic infection, and severe cold. Alterations of temperature, especially if sudden and great, notable among those who have a too copious or too nourishing diet, become the most common determining cause of the reactions.

11. The symptoms are those of gastric or typhoid fever, meningitis, cerebral congestion, serous effusions in the brain, pernicious fever, or several of these affections; but the sign of typhus, stupor with delirium, is wanting in the greater number of the cases.

12. The course of the disease is as variable as its symptoms.

13. The anatomical lesions vary like the symptoms and progress of the malady. The typhoid lesion was wanting when the disease set in suddenly and death followed rapidly, but on the contrary, it was found when the course had been that of typhoid fever, or the typhus of Hildenbrand.

14. The treatment should vary according to the nature, variety, and predominance of the morbid elements; but generally speaking, evacuants, sulphate of quinine, and anodynes, ought to constitute the base.

15. The diseases incurred by those who formed the personnel of the Hospital were similar to what would have happened under like circumstances, setting aside the reigning disease; debilitated by constant work, and infected by vegetable and animal exhalations of every kind.

The memoir having terminated, the President remarked that the members of the Society might consider themselves fortunate in having for an inaugural discourse a communication so important as that given by the author, M. Cazalas; and added, that it would doubtless give rise to animated discussions, at the same time stating, that for those who would like to take part the subject was at present open.

Dr. Thomas, chief of one of the French Hospitals at Constantinople, remarked, that the history of what had been observed by M. Cazalas in his establishment was so different from what had been observed in the other Hospitals, that he was sure more than one Medical man would be under the necessity of stating, on his side, what he had witnessed on the subject; but to do this fairly would require a certain time and amount of labour; he proposed, therefore, that the discussion should be put off for the following meeting.

Before closing, M. Netter remarked, that in an Hospice at St. Benôit there had been received many affected with the same disease as that at present prevailing in the Hospitals, but that no case of contagion had been observed. After this the members separated.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the Meeting of the Court of Examiners on the 16th inst.:—

Beale, Thomas Miles, New-road, Hammersmith.
Browne, Charles Henry, Bath.
Burgay, George Thomas, Nova Scotia.
Comely, George, Winchester.
Crumpe, Hamerton, Wallesley, Cheshire.
Inglis, Cornelius, Norfolk-road, St. John's-wood.
Newman, William John, Beccles.
Newcombe, Frederick, Grantham.
Magrath, Miles Monk, R.N.
Simpson, William, Ely.
Stillwell, Robert Rotheran, Epsom.
Woods, Francis Benjamin, Northampton.

At the same Court, Mr. George Bartley Moore, a member of the Edinburgh College of Surgeons, passed his examination for his diploma as a Naval Surgeon.

Also on the 21st inst.:—

Barnes, George, Pewsey, Wilts.
Curran, William, Brompton.
Dunn, Robert Henry, Royal Hospital, Dublin.
Miles, Edward Falconer, Dublin.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 24, 1856:—

Addison, George, Uxbridge.
Bullmore, William King, Falmouth, Cornwall.
Dodgson, Henry, Cumberland.
Forster, Thompson, Southwell, Notts.
Goss, Samuel Day Ditchett, Stapleton, Glouecstersh.
Oxley, William, Rotherham.
Workman, Francis, Reading.

DEATH.

Gasquet.—July 25, at Euston-place, Euston-square, Raymond Gasquet, Esq., Surgeon, aged 67.

APPOINTMENT.

Dr. Kebbell has been unanimously elected Physician to the Sussex County Hospital, in the room of Dr. Jenks, resigned.

Queen's Hospital, Birmingham.—A Grand Gala, under the patronage of the Queen, Prince Albert, the Royal Family, and the local nobility, took place in the grounds of Aston-park, near Birmingham, on Monday last. The Queen's Hospital will benefit, it is calculated, about £1000 by the *fête*.

The late Mr. Guthrie.—A large number of the friends of the late Mr. Guthrie have entered into a subscription for the purpose of erecting a monument to his memory.

Dinner of the Apothecaries' Company.—On Tuesday last, the Master, Wardens, and Society of Apothecaries dined together at the Castle Hotel, Richmond. Including guests, 190 sat down to table. Owing to the illness of the Master, Mr. Nussey occupied the chair. Among the guests we observed Dr. Andrew Smith, Dr. Balfour, Dr. Guy, Dr. Hamilton Roe, Dr. Sibson, Professor Brande, Mr. Bishop, Mr. Shaw, Mr. Spencer Wells, &c. The usual toasts having been given and responded to, Dr. Andrew Smith returned thanks for the Medical Officers of the Army and Navy, and entered at some length into a defence of the Army Medical Department from the alleged faults in the Crimea, contending that any real shortcoming was solely owing to a want of sufficient power and independence in their department. Dr. Guy responded to the toast of the Royal College of Physicians; Mr. Bishop for the College of Surgeons; Mr. Este for the Apothecaries' Company; Mr. Tegart for the Court of Examiners of the Company; Mr. Spencer Wells for the Medical Officers lately engaged in the Civil Hospitals in the East, and after a variety of other toasts, the meeting separated. It is seldom that we have seen so large a professional gathering, or so well arranged an entertainment. Great credit is due to the stewards who undertook the management.

St. Marylebone. — (From a Correspondent). — The Guardians of St. Marylebone seem desirous of emulating the notoriety of their brethren in St. Pancras. A short time since, one of their Medical Officers was reprimanded for ordering wine and other necessary stimuli for the sick poor of his district. More recently they attempted to abolish the use of stimuli among the patients in their infirmary and workhouse, but desisted from their hazardous project, owing to the cool determination of their resident Medical Officers, who steadily refused to acquiesce in the scheme. The last act of this sagacious body has been the dismissal of their district Medical Officers, five in number, after three weeks' notice, in consequence of a re-division of the districts, and an alteration in the salaries. They have now appointed seven district Officers, at salaries varying from £40 to £90 per annum (formerly £100 each), and two of the five former Medical men have not been re-elected, although stated to be eligible in their letters of notice. One of these, I believe, resigned at this time on account of the gross conduct of the Guardians, who were endeavouring to establish charges of neglect against him, to effect his removal, for the purpose of introducing another Medical man, a personal friend of several members of the Board, into his appointment. The other has also not been re-elected, in order that a favourite might be brought in. It really behoves Mr. Griffin and his brethren to be firm and wary. It is probable that the affairs of this parish would be better regulated if under the surveillance of the Poor Law Board. The chief promoter of the foregoing measures is reported to be an ex-tallow-chandler (!) who has much influence at the Board, which also includes a teetotaller, a Medical man (who appears in the Supplemental List of the Medical Directory), and a Homœopath among its members!!!

Dove's Trial.—The cost of the trial will not be less than £2476 16s. This is exclusive of the cost of the inquiry before the coroner.

Archæological Institute.—On Friday, at the meeting of this Institution in Edinburgh, Professor Simpson read a paper on the vestiges of Roman Surgery and Medicine in Scotland and England.

Smithfield Market.—In the House of Commons on Tuesday, Viscount Raynham asked whether, as Smithfield Market was not again to be a cattle market, any objection existed to the removal of the pens, &c., so that it might become a place of recreation for the inhabitants of the locality? The Chancellor of the Exchequer said he quite agreed that the present site of Smithfield was not only unsightly but somewhat inconvenient; but the House was aware that the title to the soil of Smithfield was, to a certain extent, in dispute between the Corporation of the City and the Crown—at least the right of the Crown was not altogether admitted; therefore it was impossible to appropriate the site without an Act of Parliament. He understood that if the railings were removed, great inconvenience would result from having such a large open space.

The National Vaccine Board.—The Report of the National Vaccine Board shows that in the course of the past year 220,639 charges of lymph have been sent out. It is

gratifying to report that the employment of the lymph in the various military depôts and hospitals at Scutari, and in the Baltic and Black Sea fleets, has been most successful as a prophylactic, and has effectually protected our forces against the spread and ravages of the loathsome pestilence of small-pox. 128,495 vaccinations are reported, of which 8637 were performed by the stationary vaccinators of the Board in the Metropolis. The letters received from correspondents have amounted to 10,539. These bear striking testimony to the efficacy of the vaccine lymph. Ireland, however, is greatly in want of a more sufficient supply of the lymph. It is a subject of regret that the employment of vaccination is materially impeded both at home and in the colonies by carelessness, wilful negligence, and the prejudice of the poor and ignorant, from which some of the wealthier classes of society are reported to be by no means exempt. The effect of the Vaccination Extension Act cannot, for some years, be satisfactorily ascertained, but the experience of the board affords strong evidence that there would be no adequate means of testing it at all without an unfailing central source of supply.

Vaccination.—At 4, Morgan-place, Mile End Old Town Lower, on July 22, the son of a labourer, aged 2 years, died of small-pox, not vaccinated. Mr. Castleden, the Registrar, adds:—"This case shows clearly the inefficient working of the 'Compulsory Vaccination Act.' The child was born October 29, 1853, and registered by me November 30, at which time I gave to the father the required notice. Not receiving the Medical certificate in due course, I made inquiry, and learnt that the family had removed—where unknown. I hear nothing further until the mother comes to register the death. The parents are poor, have four other children, and are evidently disinclined to vaccination, as shown by another child, aged 5 years, having the small-pox, but now recovering. From the commencement of the 'Compulsory Vaccination Act,' August 1, 1853, to December 31, 1855, I have upwards of 600 births registered for which I have received no certificates of successful vaccination."

The Case of Workhouse Cruelty.—On Monday the special inquiry, which had previously lasted two days, into the alleged extraordinary charge of flogging, and otherwise ill-treating some female paupers, by Mr. Ryan, the master, and the two porters, Green and Brown, was resumed before the directors and guardians of the poor, in the board-room of the workhouse, New-road. The facts of the case were of the most painful character. On the part of the female paupers, it was proved in evidence, that they had been most shamefully treated; and they stated that not only were they fearfully treated by the two porters with canes, kicked, and dragged along the ground, but the master, Mr. Ryan, on the occasion, used a riding-whip, with which he struck one of the women while on the ground. After a very lengthened discussion, the Board adopted a motion severely condemning the conduct of the workhouse officials, but leaving the matter to be dealt with by Mr. Broughton, the magistrate.

New York Emigrant Hospitals.—These are gigantic establishments, that do honour to the State of New York, erected for the reception and treatment of destitute emigrants, who flock thither from all parts of Europe. They consist in buildings placed on Ward's Island and on the Quarantine Ground, Staten Island. The latter is, indeed, intended for the protection of the State from the propagation of pestilential disorders, and to it all emigrants, the subjects of contagious diseases, are consigned on their arrival. During 1855 there were 2402 patients treated, the mortality for the whole amounting to 12·98 per cent., which, considering the unfavourable character of many of the cases, must be regarded as small. The establishment on Ward's Island consists of 42 buildings, comprising hospitals, reception-rooms, nurseries, etc. On January 1, 1855, there were 3168 inmates, and 3164 were admitted during January, February, and March; the numbers decreasing at the close of the year to 1865. During the year 11,532 were treated. Dr. Fay is the Chief Physician and Dr. Carnogan the Chief Surgeon. The percentage of mortality was 9·7 per cent. during the first seven months and 4·4-5ths during the remainder of the year. The surgical cases amounted to 3517, with 64 deaths.

Alexis W. Martin.—Alexis W. Martin, who formed the subject for the performance of Dr. Beaumont's celebrated experiments on digestion in Canada, is about to make a tour through Great Britain and the United States. He is fifty-two years of age and in excellent health; but his scanty pay as a woodchopper scarcely sufficing for the support of his wife and five children, Dr. Bunting, of Canada, has resolved to take him his professional tour, lecturing on his case, and demonstrating before Medical men the digestive action, as observable by the fistulous opening in the stomach. He hopes that in this way enough may be realised to enable W. Martin to quit his occupations and devote himself to the cause of science for the rest of his life. The showman Barnum was very anxious to lay hold of him, in order to prop up his shattered fortunes; and, if Dr. Bunting wishes for a Professional acceptance here, he must be careful to disconnect himself from all similar speculators.

The Registrar-General's Quarterly Return.—The marriage rate, which was low, is now slightly above the average rate; the birth rate is high; and the death rate is low, so that the state of the population, in the light of these returns, is favourable. 173,204 boys and girls were born and registered in the spring quarter that ended on the last day of June, giving an increase of 7954 children on the numbers of the corresponding quarter of 1855. It is the spring quarter in which the greatest number of births generally occurs, and this number is the highest that has ever been returned in England. The number of registered births rose from 136,941 in the spring quarter of 1844 to 173,204 in the last spring quarter. As the number of births was 173,204, and the number of deaths 100,310, the natural increase of the population of England was 72,894 in the three months of April, May, and June; so 1903 lives were added, 1102 were taken away daily; leaving 801 as the daily increase. But in the same three months, 60,379 emigrants left the ports of the United Kingdom at which Government agents are stationed, and of that number about 21,304 were of English origin. The emigration from the ports of the United Kingdom is less by nearly 6000 than the emigration (66,111) in the spring quarter of 1855, and is less than half the average emigration (113,141) of the corresponding quarters of the eight years 1847-54. The deaths in the three spring months were 100,310; and the annual mortality was at the rate of 2·117 per cent., or nearly 21 in 1000; the average annual rate of the season being nearly 23 in 1000. The mortality has been, during the whole of the half year past, much below the average rate. The mortality in the spring quarter among the people living in the districts and the sub-districts comprising the chief towns of England was at the annual rate of 23·85 (nearly 24) per 1000; the mortality of the rest of the people in the small towns and in the country parishes was at the annual rate of 18·78 (nearly 19) per 1000. The rate of mortality is in both classes of districts below the average; but the reduction of the rate is less considerable in the town than in the country populations.

Mortality Notabilia.—The mortality in London is below the usual average rate which prevails within its limits. In the week that ended on Saturday, 995 persons,—of whom 487 were males, 508 females,—died. The total number differs little from that of the preceding week, which was 1018. The corrected average of the corresponding weeks of the previous ten years was 1213. But this result represents more than the nominal rate of mortality, in consequence of cholera, which was epidemic in 1849 and 1854, having carried off in the corresponding weeks of those years about 916 persons. 278 persons died of zymotic diseases, including 11 by cholera, 71 by diarrhœa, 20 by small-pox, 45 by measles, 19 by scarlatina, 48 by typhus, etc. Ten of the deaths by cholera are returned as infantile cholera, and occurred to children under 2 years of age. The deaths from diarrhœa have increased from 15 weekly in June, to 29, 48, 62 in July, and in the last week, to 71. Phthisis was fatal in 120 cases. Half of the deaths that happen on an average in London, between the ages of 20 and 40, are from consumption and diseases of the respiratory organs. The deaths from these diseases in the last week were 65; the deaths from all other diseases at the same period of life were 82. The deaths from consumption and from other diseases of the respiratory organs, at all ages, were 220.

Births.—The births of 844 boys and 764 girls, 1608 children, were registered. Average, 1394.

Meteorology.—The mean reading of the barometer was 29·738 in. for the week ending July 26; the sky for the most part was overcast with occasional showers. Lightning was frequent at night on Wednesday, with thunder, which was also heard on Saturday. Electricity was positive throughout the

week, except Sunday. The atmosphere was warm, and the average temperature was 2·3° in excess on the average derived from the same week for the last 38 years. The mean daily temperature was 64·2°, or about 4° above the temperature of the week preceding. The thermometer rose to 83·0° on Wednesday; from this point it fluctuated and descended to 49·8° on Saturday. The average dew-point was 6·0° below the air temperature, and showed a difference of between 8 and 9 degrees on Friday and Saturday, consequently the air was drier on those days than during the preceding part of the week. Wind south-west, which passed over Greenwich at rates averaging 86 miles daily.

DEATHS IN PUBLIC INSTITUTIONS for the Week ending July 26 :—

	Males.	Females.	Total.
Workhouses	38	55	93
Prisons	..	..	..
Military and Naval Asylums ..	8	..	8
General Hospitals	31	24	55
Hospitals for Special Diseases ..	3	3	6
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	7	..	7
Hospitals for Foreigners, etc. ..	..	..	..
Lunatic Asylums	2	2	4
Total	89	84	173

THE following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	3	7	3	4	21	7
North	490,396	1	12	3	7	21	12
Central ..	393,256	6	8	1	7	8	5
East.....	485,522	7	4	5	7	13	15
South	616,635	3	14	7	8	8	9
Total..	2,362,236	20	45	19	33	71	48

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, July* 26, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, July 26, 1856. Deaths of Persons. AT ALL AGES. Mean temp.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	64·2						62·0
ALL CAUSES	995	522	147	146	146	34	1103·2
SPECIFIED CAUSES	989	516	147	146	146	34	1097·9
DISEASES:—							
1. Zymotic Class	278	217	30	15	15	1	398·7
2. Dropsy, Cancer, and others of uncertain seat	52	10	5	19	15	3	39·8
3. Tubercular Class	173	72	64	34	3	..	191·3
4. Of Brain, Nerves, etc. ..	112	54	13	13	25	7	114·7
5. Of Heart, etc.	31	2	3	12	14	..	31·2
6. Of Respiratory Organs ..	100	54	4	15	24	3	81·6
7. Of Digestive Organs ..	63	19	10	20	14	..	67·7
8. Of Kidneys, etc.	18	..	5	7	5	1	12·2
9. Of Uterus; viz. — Puerperal Disease, etc. ..	7	..	5	1	1	..	8·8
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	8	4	2	2	..	..	6·4
11. Of Skin, etc.	3	2	..	1	..	..	1·7
12. Malformations	5	5	..	..	..	..	3·7
13. Debility from Premature Birth, etc.	23	23	..	..	..	..	28·9
14. Atrophy	31	24	..	..	7	..	38·7
15. Age	37	..	..	..	19	18	34·2
16. Sudden	6	3	1	1	1	..	5·2
17. Violence, Privation, etc...	42	27	5	6	3	1	33·1
CAUSES NOT SPECIFIED.. ..	6	6	..	..	..	..	5·3

BOOKS RECEIVED.

Taylor on the Climate of Pau. A New Edition. Parker and Son. 1856.

Army Meteorological Register for Twelve Years, from 1843 to 1854 inclusive. Prepared under the direction of Brevet Brigadier-General Thomas Lawson, Surgeon-General United States Army. Washington. 1855.

A Practical Treatise on Disorders of the Stomach with Fermentation: the Causes and Treatment of Indigestion, and on Diet. By James Turnbull, M.D. London: Churchill. 1856.

TO CORRESPONDENTS.

Mr. A. G. Field will receive a private note.

Mr. Isaac Byerley.—The translation kindly forwarded to us is not only written in a hand which is difficult to decipher, but it is marked by many foreign idioms. If revised and rewritten it would form an interesting communication.

We must still decline to insert Dr. Bakewell's letter in the absence of Dr. Mouat from this country. Even if the latter gentleman were in England, we should hesitate to open our columns to such a controversy. Differences of opinion on surgical cases may be quite compatible with the highest professional skill; and we are in no position, in the instance before us, to form an adequate judgment of the case.

Dr. M.—Dr. Hyde Salter has lately been elected a Fellow of the Royal Society.

Dr. F.—The Lectures in the Faculty of Medicine of Paris commence in November; but Hospital Practice is attended, and occasional Lectures are delivered, throughout the whole year.

Enigma.—The value of German Degrees varies according to the reputation of the Universities by which they are conferred. Those of Berlin and Vienna are in high estimation. Baron Liebig is no longer Professor of Chemistry at Giessen, as he has removed to a similar position in the University of Munich.

The author of the paper, "On the Difference between the Mortality after Amputation for Injuries and Diseases," has omitted to append his name to the communication. Perhaps he will be good enough to supply the deficiency.

Honestas.—We cannot recommend any particular practitioner, but your ordinary Medical Attendant can no doubt furnish you with the names of those who are most distinguished in the speciality alluded to.

H. B., Sloane-street.—We have heard of some of the wonderful cures of cancer by the party in question, but we cannot have better evidence than that which we at present possess, to overcome our incredulity.

COMMUNICATIONS have been received from—

Dr. KEBBELL; Dr. J. O. M'WILLIAM; Mr. E. HAMMOND; Mr. W. H. ASHLEY; Mr. T. H. HUXLEY; Mr. R. GRIFFIN; Dr. D. H. MONCKTON; Mr. J. CLARKE; Dr. A. WHYTE BARCLAY; Dr. R. H. BAKEWELL; Mr. A. G. FIELD; THE EPIDEMIOLOGICAL SOCIETY; Mr. ISAAC BYERLEY; Mr. TOYNBEE; SIGMA; Mr. STEVENSON; Dr. F.; Mr. MOORHOUSE; Mr. NEWTON; Dr. SCHWARTZ; ENIGMA; MISERRIMUS; Mr. NORTH; EXPERTUS; AN APPRENTICE; HONESTAS; H.B., Sloane-street.

APPOINTMENTS FOR THE WEEK.

AUGUST 2. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

4. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m.: Dr. B. W. Richardson "On the Cholera which visited Her Majesty's Black Sea Fleet, in the Autumn of 1854."

5. *Tuesday.*

Operations at Guy's, 1 p.m.

6. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

7. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

8. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

LECTURES

ON

GENERAL NATURAL HISTORY.

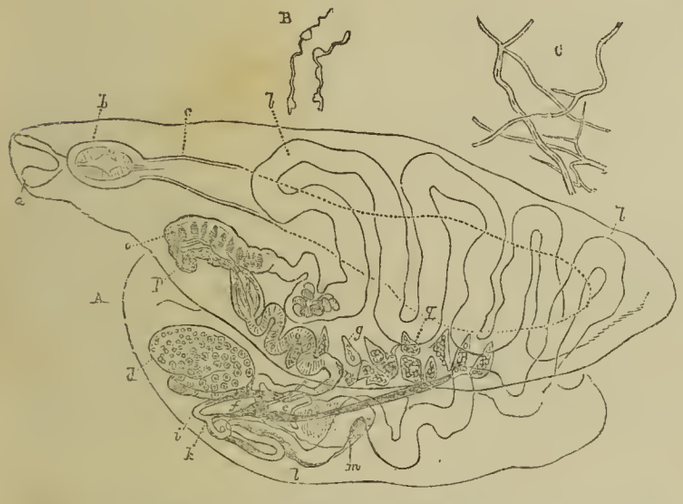
By THOMAS H. HUXLEY, F.R.S.,

Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

LECTURE VII.

The *Hirudinidæ* or leech tribe are usually supposed to form a link between the *Annelida* on the one hand, and the *Trematoda* on the other, but their affinities are closer with the latter than with the former. Totally deprived of the characteristic setæ of the *Annelida*, and exhibiting no division into definite somites, they are provided with the suckers so constantly possessed by the *Trematoda*, and present no small resemblance to them in their reproductive organs. On the other hand, in the arrangement of their nervous system and in their vascular system the *Hirudinidæ* resemble the *Annelida*. The extant descriptions of the anatomy of this group are so numerous and accessible, and there are so many other forms of far more importance as modifications of the Annuloid plan to be dealt with in the course of the present Lecture, that I prefer to ss at once to the *Trematoda*.

Fig. 1.



Aspidogaster conchicola.—A. Arrangement of the alimentary and reproductive organs. Profile of the animal in outline, *a*. Mouth. *b*. Muscular pharynx. *c*. Stomach *d*. Ovarium. *e*. Internal vas deferens. *f*. Common vitellarian duct. *g*. Vitellarium. *h* One of its ducts. *i*. *k*. Oviduct. *l*. Uterus. *m*. Testis. *o*. Vagina. *p*. Penis, continuous posteriorly with the external vas deferens. B. One of the lateral contractile vessels. C. Ramifications of the ciliated vessels.

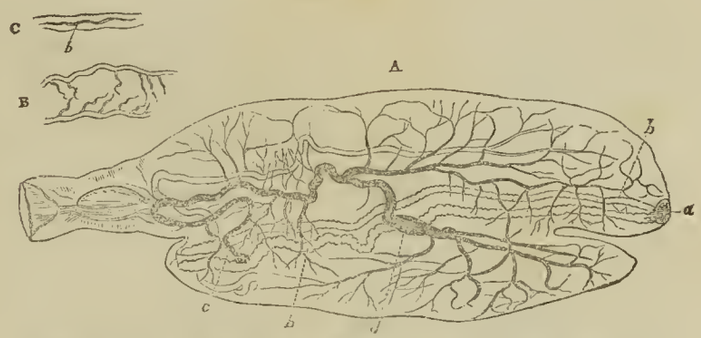
Aspidogaster conchicola, which I select for description as the type of this group, was discovered by Von Bär and described in his "Beiträge zur Kenntniss der niederen Thiere" (Nova Acta, 1826). The animal lives in the pericardium, kidney, and liver of the fresh-water mussel (*Unio*, *Anodon*) and rarely attains a length of $\frac{1}{8}$th of an inch. The body is oval and elongated, rounded posteriorly, but anteriorly produced into a neck, terminated by the sucker-like mouth, which is capable of great elongation and very flexible. Attached to the greater part of the middle of the body is an oval disk or sucker, of much larger proportional size than is usually the case in the *Trematoda*, and presenting the further peculiarity of being divided by longitudinal and transverse ridges into four series of quadrate compartments upon its under surface. This great sucker is the principal organ of attachment and of locomotion. By its means, the animal adheres firmly to the walls of the chamber in which it resides, or by giving the sucker a hollow boat-like form it floats at the surface of the water.

The cup-like mouth communicates by a very narrow passage with the cavity of an oval muscular pharyngeal bulb, from which a short œsophagus is continued posteriorly to open into the stomach. This organ is a single pyriform cœcal sac, wider posteriorly than anteriorly, and extending through the greater part of the length of the body. The walls are very contractile, and, though thin and delicate, very distinct. They are connected with the parietes by a sort of network of rudimentary connective tissue, which traverses the perivisceral cavity. The stomach is usually full of dark, strongly refracting granules (very similar in appearance to those which we shall find in the vitellarium) which are kept in constant motion by its contractions. There is no trace of any intestine or anal aperture—the "terminal pore," which Von Bär described as such, belonging to a totally different apparatus—the water-vascular system.

This terminal pore (Fig. 2, *a*.) is, in fact, the aperture of a small sac, very similar to the contractile vesicle of the *Rotifera*, and, like it, undergoing incessant contractions and dilatations—by which, as Von Bär states, a little pellucid matter is sometimes forced out. Two wide vessels with delicate and slightly wrinkled parietes (Fig. 2, *b*.) pass from the anterior extremity of the sac along each side of the lower region of the body, to the anterior extremity of the sucker, where they terminate cœcally. These vessels are highly contractile, more especially in their posterior part, and, like the terminal sac into which they open, they are entirely devoid of cilia. A little behind its anterior extremity, each lateral vessel gives off a much narrower branch (*c*), which passes at first upwards and then forwards, to a level with the anterior extremity of the pharyngeal bulb. Here it bends back upon itself and runs parallel with the great lateral vessel to the posterior extremity of the body, giving off numerous branches in its course, which ramify and anastomose extensively, and terminate in very delicate branches in the parietes (Fig. 1, C).

These vessels differ from those in which they took their origin in several respects: they are non-contractile, and they are abundantly provided with long undulating cilia, set at pretty close intervals along the walls of the larger trunks, but becoming more scanty in the finer ramifications.

Fig. 2.



A. Water-vascular system of *Aspidogaster conchicola*. *a* Terminal pore. *b*. Lateral contractile vessels. *c*. Lateral ciliated trunks, that of the left side shaded. *d*. Dilatation of this trunk. B. One of the larger and C. one of the smaller ciliated vessels.

The left main trunk of the non-contractile ciliated vessels differs from the right in giving off about the middle of the body a branch which suddenly dilates (*d*), and then narrows again as it passes downwards towards the sucker, in which it divides into three principal branches for the supply of the middle and posterior regions of that organ, and of the genital organs lodged in it. The fusiform enlargement is attached to the inner surface of the left lateral contractile trunk, but, so far as I could see, does not open into it.

Like Dr. Aubert (a), I have been unable to detect any trace of a nervous system in *Aspidogaster*, but I can hardly doubt that it will be eventually discovered.

(a) Ueber das Wassergefäss-system, die Geschlechts-verhältnisse, die Eibildung und die Entwickelung des Aspidogaster Conchicola. Von H. Aubert.—Zeitschrift für Wiss. Zoologie. B. VI. 1855.

The observations on which the account in the text is based, were made in the spring of 1854. I regret that space does not allow me to enter into a discussion of the points upon which I differ with Dr. Aubert.

Fig. 3.

Fig. 4.

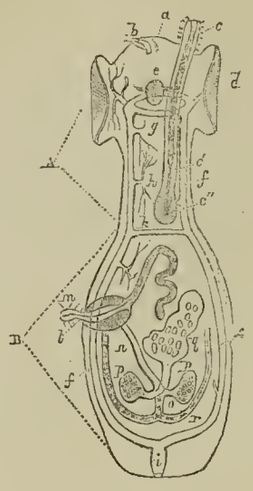


Fig. 3.—Reproductive organs of *Aspidogaster* on a larger scale. Letters as in Fig. 1.

Fig. 4.—Diagram of the structure of the *Tæniadæ*. A, Head and neck. B. Segment of the body corresponding with a proglottis. *a*. Rostrum. *b*. Rostral spine (*Tænia*). *c*. *c'*. *c''*. Proboscis. (*Tetrarhynchus*). *d*. Sucker. *e*. Ganglion. *f*. Lateral and *g*. circular, water-vessel. *h*. Ramifications. *k*. Anastomosing trunk. *i*. Contractile vesicle. *l*. Genital vestibule. *m*. Penis and vas deferens. *n*. Vagina. *o*. Common cavity and vesicula seminalis interior. *p*. Ovary. *q*. Uterus. *r*. Vitellarian duct.

As in most *Trematoda* the genitalia form a large part of the viscera. They consist of—1. The ovarium. 2. The vitellarium (b). 3. The oviduct. 4. The uterus. 5. The common vestibule. 6. The testis. 7. The vasa deferentia, internal and external. 8. The penis and its sac. The ovary (*d*) is the anterior of two rounded masses lying in the sucker. At first sight it appears to be oval, but it is, in fact, pyriform, the larger end being anterior, while the posterior narrower extremity is bent backwards beneath the anterior. Before it reaches the anterior extremity of the mass, however, it is bent sharply back again, parallel with itself, and so passes into the oviduct. The ovary is surrounded by a delicate, but strong, fibrous-looking coat, enclosing a mass of homogeneous transparent matter (periplast). At the anterior end of the ovary minute granules (endoplasts) are scattered through this substance, and are occasionally surrounded by a faint, clear area. These are the rudimentary germinal spots and vesicles of the future ova, the course of whose development may be readily traced by working from the anterior to the posterior extremity of the ovary. The germinal spots become larger, and gradually assume the appearance of vesicular nuclei; while the clear area around them in like manner becomes larger, and acquires more and more the appearance of a cavity. While this cavity is small, it has no distinct wall, but as it enlarges the contour of the wall becomes distinctly marked, and the germinal vesicle is converted into a "nucleated cell." In the larger germinal vesicles, a minute speck, like a granule, made its appearance upon one portion of the parietes. This appearance was constant in one ovary, but in the others I failed to find it so regularly developed. On examining the ovary close to the commencement of the oviduct, a division of the periplast into arcæ surrounding each germinal vesicle becomes obvious. On the application of pressure, the periplast breaks up into masses corresponding with these areæ in size, which are very flexible, but when left to themselves assume a rounded or oval form, and have all the appearance of perfect ova, except that they possess no vitellary membrane, and that the yelk, instead of being granular, is perfectly clear, and comparatively small. These primary ova, if I may so term them, become detached, and pass into the oviduct. Here they are fecundated, and, becoming surrounded by a great mass of accessory yelk, and a shell, gradually acquire the appearance of the complete ova.

The accessory yelk is the product of the vitellarium—a large double gland (*g*), consisting of a number of oval, pyriform, or irregular granular masses placed on each side, at the junction of the sucker with the body.

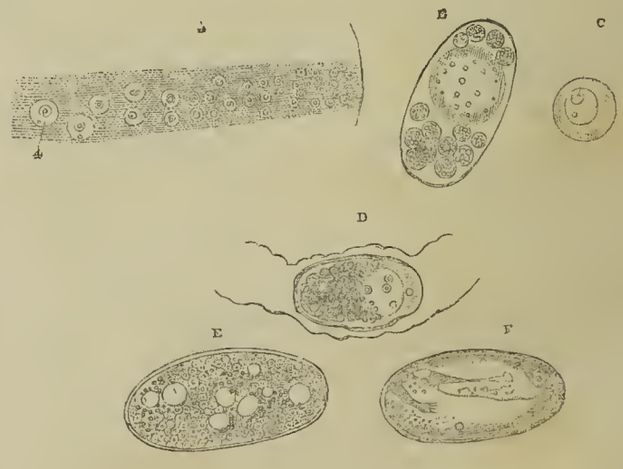
These masses appear to be quite independent of one another; nor do they at first, present any obvious communication with the genitalia; but if the oviduct, just after it becomes free from the ovarium, be examined, it will be found to receive a short duct, filled with strongly refracting granules of the same nature as those in the vitellarium. This duct is enlarged posteriorly, and then divides into two ducts filled with the same matter, which take a direction towards the vitellarium, but can be traced no further than they contain granules. By the careful application of pressure, however, the granules may be forced from the vitellarium, through an anterior and posterior branch upon each side, into these ducts.

The oviduct is richly ciliated internally; it is at first applied to the under surface of the ovarium, and when it becomes free it receives a canal, which I traced back to the testis, and which would appear to correspond with the internal vas deferens discovered in other *Trematoda* by Von Siebold. This canal, however, presents no dilatation, or internal vesicula seminalis. The oviduct next receives the duct of the vitellarium, and then becoming much convoluted, and rapidly widening, passes into the uterus, a wide tube, which runs forwards, disposed in many undulating curves through the perivisceral cavity, to terminate on the left side of the anterior part of the body, in common with the male organs. Posteriorly, the walls of the uterus are thin; but anteriorly they become thick and muscular. The genital vestibule is very small.

The testis (*m*) is an oval body of the same size as the ovarium, and situated just behind it. Minute water-vessels ramify upon it, as upon the ovarium; and it contains a granular and vesicular mass, but no spermatozoa. The external vas deferens is a delicate duct, which passes forwards and comes into contact with the ovarium, without, however, as far as I could observe, communicating with it or with the oviduct; it then bends backwards and upwards, passing out of the sucker between the anterior vitellarian masses into the body. Here it suddenly becomes about twice as wide as before, and runs forwards, as an undulating thick tube, to the penis, a short and conical body, occupying the bottom of a large pyriform sac, which opens in common with the uterus. The spermatozoa are linear.

The development of the ova presents many very interesting peculiarities. Above the junction of the duct of the vitellarium with the oviduct the contents of the latter were pale and clear, and presented no formed particles besides the primary ova which had just been detached from the ovarium. Below the insertion of the vitellarian duct, however, the oviduct was full of granules like those in the vitellarium, mixed up with ova in a more advanced state. In the smallest of these which I found, (Fig. 5 D.), the shell of the ovum had commenced, but was incomplete at one end. At the opposite extremity it enclosed a mass of irregularly aggregated vitelline granules, which covered almost one-half of a round pale mass, not larger than one of the primary ova; in which, however, I could distinguish three endoplasts, two of which were very close together, as if they had just divided. In more advanced ova the shell was complete, but either colourless or of a very pale brown hue. In some of these the primary ova contained many endoplasts, and were imbedded in and surrounded by, a confused mass of accessory yelk granules; while in others these granules were aggregated into a number of regular spheroidal masses (B).

Fig. 5.



Aspidogaster conchicola.—A. Section of the ovary. C. A primary ovum. D. Young state of a complete ovum. The primary ovum partially surrounded by yelk granules and a shell. B. Complete ovum with the accessory yelk aggregated into spheroids. E. Vacuolated embryonic mass. F. Embryo.

(b) This term may be conveniently applied to the organ called "Dotter stock" by the Germans. I am not aware that we have any English equivalent for it.

As development proceeds the accessory yelk-masses gradually disappear; the primitive ovum, now become the homologue of the blastodermic disk or vesicle in other animals, to all appearance increasing at their expense. At the same time clear rounded vacuoles in various numbers appear in its substance (c); but the endoplasts of the germ, though very minute, can, with proper care, be readily detected between these. In the final stages the shell becomes browner, the vacuoles and granules disappear, and the substance of the embryo appears homogeneous. But, if carefully examined, the minute endoplasts become visible, especially if water be allowed to act on the tissue; and, if the shell be burst, and its contents poured out, they readily break up into minute but well-marked "cells," each with its "nucleus" or endoplast. At the same time, the embryo takes on a form distantly resembling that possessed by the adult; into which, as Dr. Aubert has shown, it eventually passes without any metamorphosis.

It appears, then, that in *Aspidogaster* the ovarium gives rise to primary ova (*conf.* Aubert, *l. c.* p. 362,) which pass down the oviduct, and become fecundated by the spermatozoa conveyed by the internal vas deferens; (d) that then the essential part of the process of "yelk-division" takes place, the endoplast or germinal spot dividing and subdividing, and the primary ovum becoming in this way converted into the spheroidal blastoderm; that, contemporaneously, the blastoderm becomes invested by the accessory yelk granules poured in by the vitellarian duct, and by a shell; that the accessory yelk arranges itself into spheroidal masses, which probably supply the blastoderm with the means of its constant enlargement; that, finally, the accessory yelk disappears, and the blastoderm becomes converted into the embryo. The fully developed ovum would thus correspond very nearly to that of the bird, in which the accessory yelk is supplied by the walls of the Graafian follicle instead of by a distinct vitellarium.

The *Trematoda* present a considerable variety in the details of their organization. In some, such as *Tristomum*, *Polystomum*, *Octobothrium*, etc., the number of suckers is considerably increased; in *Octobothrium* and *Diplozoon*, a horny framework supports some of them; and in *Gyrodactylus*, and some species of *Polystomum* and *Tristomum*, they are provided, in addition, with an armature of strong hooks.

In the majority of the *Trematoda* the intestine is double, and its branches frequently ramify, as in the Fluke, *Distoma hepaticum*, but in no case has any anal aperture been found. In *Gasterostomum* and *Bucephalus polymorphus* the oral aperture is (Von Siebold, Wagener,) situated in the middle of the ventral surface, while in the *Amphiptyches urna* of Wagener there would seem to be no alimentary canal at all. A nervous system, consisting of two ganglia, united by a transverse commissure above the œsophagus, and sending off cords posteriorly to the hinder end of the body, from which lateral branches are given off, has been observed in many *Trematoda;* and in some forms oval papillæ and pigment spots have been interpreted to be organs of sense.

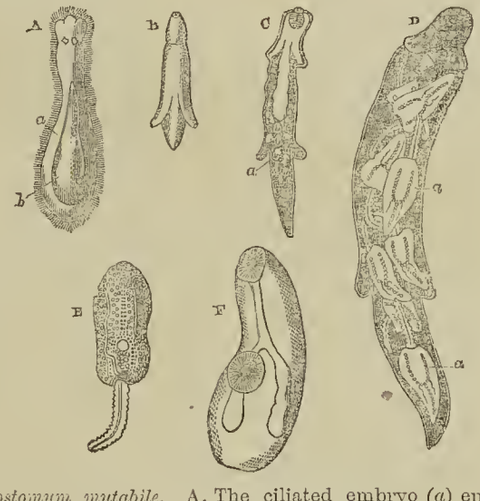
The water-vascular system is always well developed; but great confusion has arisen in consequence of the very different appearance, in some cases, of the two portions which I have distinguished in *Aspidogaster* as the contractile and non-contractile vessels. In many *Trematoda*, in fact, the vessel or vessels corresponding with the contractile portion are filled with a granular matter, which is from time to time excreted from the terminal pore, while the rest of the vascular system is entirely free from such granules. Until Van Beneden demonstrated the contrary, it was supposed that these "excretory vessels," as they were called, formed a system completely distinct from the others. Van Beneden's observation of their continuity in *Distoma tereticolle* has, however, been confirmed by Aubert, and I have observed in the clearest manner the continuity of the two systems in *Distoma excisum* (from the Mackerel.) In this worm the terminal pore is the aperture of an elongated strong muscular sac, from whence a wide tube runs up the middle line of the body, almost as far as opposite the ventral sucker. Here it divides into two branches, which incline to the sides of the body, and apparently terminate in cœcal extremities, just behind the oral sucker, on the ventral surface of the body. The whole of this great bifurcated tube was usually full of minute, strongly refracting granules. A very distinct pair of valves is placed at the point of bifurcation; but their use appears to be doubtful, as the contractions of the tube thrust them open sometimes backwards and sometimes forwards. Close to the anterior cœcal ends of these "excretory" vessels two tubes commenced, whose delicate contractile walls, and clear, strongly refracting, and reddish (e) contents, gave them quite the aspect of the vessels of the *Annelida*. By careful management not only could the direct continuity of these tubes with the "excretory" vessels be made out, but the granules could be pressed from the one into the other. There must, however, be some arrangement by which this is normally prevented, for not a trace of any granules can ordinarily be detected in the contents of the tubes. They run back along the sides of the body, and give off numerous branches, which eventually form a network over its whole surface.

The ultimate ramuscles have a diameter of not more than $\frac{1}{14000}$th or $\frac{1}{20000}$th of an inch. I could find no cilia in any of these vessels in the body; but in the head I found a few flickering cilia lodged in pyriform terminal enlargements of the finest ramifications. These appeared to be cœca, but it would be very hazardous to assert that they really are so. In *Distoma tereticolle*, *perlatum* and *nodulosum*, and in *Amphistoma subclavatum*, according to Aubert, no cilia at all exist in any part of the water-vascular system; so that in these *Trematoda*, its condition is, as it were, diametrically opposed to that which it exhibits in *Aspidogaster*.

The reproductive organs in the *Trematoda* present great diversity in arrangement; but, in almost all, it is so essentially similar to that which obtains in *Aspidogaster*, as to obviate the necessity of entering into further details. It is necessary to remember, however, that in the ordinary descriptions, the vitellarium is confounded with the ovarium.

The *Trematoda* are very rarely dicœcious; but Professor Kölliker has described a species, *Distoma Okenii*, the male and female of which, very different in appearance, inhabit, in pairs, cysts attached to the gills of *Brama Raii*. Dr. Bilharz has discovered another very remarkable unisexual Trematode, *Distoma hæmatobium*, in the portal vein and other organs of man.

Fig. 6.



A. B. *Monostomum mutabile*. A. The ciliated embryo (*a*) enclosing the zooid (*b*) represented free in B. (after Siebold). C. *Redia*, or King's-yellow worm, of *Distoma pacificum*, containing germs of other *Rediæ*. D. *Redia* containing *Cercariæ* (*a.*) E. *Cercaria*. F. *Distoma* (after Steenstrup).

It is in the manner of their development, however, that the *Trematoda* present the most remarkable differences from one another. *Aspidogaster*, as we have seen, undergoes no metamorphosis; but in many *Trematoda*, the embryo leaves the egg as a ciliated larva. In such a larva (A), proceeding from the egg of *Monostomum mutabile*, a Trematode parasite of waterbirds, Von Siebold discovered that a very peculiar body was

(c) I cannot help thinking that it is these which have hitherto been regarded as the "embryo-cells;" the aggregation of the accessory yelk into spheroids having been confounded with yelk-division. The true structure of the embryo appears to have been overlooked. Compare the remarks of Kölliker on the ova of the *Tæniadæ*, in Müller's Archiv. for 1843, and also of Thaer, Ueber *Polystomum appendiculatum*, Müller's Archiv., 1850.

(d) These animals, doubtless, copulate; but it is very difficult to understand how the spermatozoa, thus received, can reach the ova.

(e) In *Distoma tereticolle*, also, according to Von Siebold, (Lehrbuch p. 136,) the contents of these vessels are reddish.

contained and eventually, by the moulting of the outer ciliated investment, became free (B). The further fate of this larval form has not been traced in *Monostomum*; but Bojanus discovered, in fresh-water Gasteropods, peculiar parasitic organisms of a precisely similar structure, which, from their colour, he termed "king's-yellow" worms. These king's-yellow worms (C) have the form of cylindrical sacs, tapering posteriorly into a tail, and provided with a little process on each side, where the body joins the tail. At the anterior extremity is a mouth, opening into a short cylindrical cœcal intestine; but there is no trace of any other organ. Nevertheless, rounded germ-masses, which must be regarded as free buds, make their appearance in the cavity of the body, in which they float and become metamorphosed either into a new brood of king's-yellow worms, or into what are called *Cercariæ*, creatures resembling *Distomata*, but without reproductive organs, and provided with a long vibratile tail. The Cercariæ become free, and swim about in the water until they meet with some animal, such, for instance, as an insect larva, in which they can undergo their further development; they then bore their way through the integument, and in so doing lose their tails, and become converted into ordinary *Distomata*, which may either develope reproductive organs or may become encysted, to await the transference of their host to the interior of some higher animal.

The first generation of king's-yellow worms are in Steenstrup's peculiar nomenclature called "parent-nurses;" the second, "nurses;" but it will be observed that parent-nurses, nurses, and *Cercariæ*, are all zooid forms produced by a sort of internal gemmation. M. de Filippi, in a recent interesting memoir (f), describes many forms of the nurses, and pointing out that some are provided with a mouth and intestine, while others have neither, but are mere sacs; he proposes to distinguish the former as *Rediæ*, the latter as *Sporocystes*. The series of zooid forms through which these Distomata, then, would seem to pass is,—1stly. Ciliated larva; 2ndly. *Redia*, or *Sporocystis*; 3rdly. *Redia*, or *Sporocystis*; 4thly. *Cercaria*; 5thly. *Distoma*. But it must be remembered, that hitherto no one *Distoma* has been traced through *all* these stages, and that *Monostomum mutabile* alone has been found in the first and second; neither is it known how many successive developments of *Redia* or *Sporocystis* may take place between the second and the fourth stage.

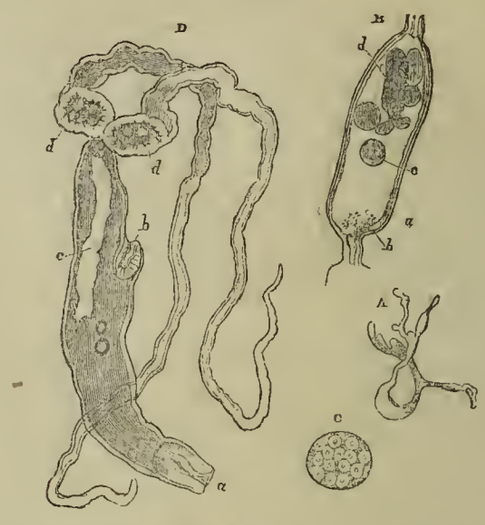
Again, as De Filippi has shown, considerable variation exists with regard to other points. The *Distomata* of the *Lymnæus auricularis*, and of *Paludina impura*, are developed directly, the former within sporocysts, the latter within *Rediæ*, without the intervention of the *Cercaria* stage. The Redia of *Cercaria echinatoides* does not appear to develope secondary *Rediæ* at all, but to give rise at once to *Cercariæ*, among which, however, are occasionally found quite distinct Trematodiform organisms, called *Tetracotyli*, which De Filippi imagines to be the equivalents of the secondary *Rediæ*. The *Sporocystis* of *Cercaria vesiculosa* multiplies by fission before developing *Cercariæ*.

A similar, but perhaps still more singular, case of zooid development is to be found in the *Bucephalus polymorphus* of Von Bär. If a number of fresh-water mussels be examined, one or two are pretty sure to be found in a very strange condition, the abdomen appearing to be stuffed with a white, filamentous, cottony-looking substance. If some of these filaments (Fig. 7 A.) are placed under the microscope, they will be found to be tubes irregularly constricted at intervals, and consisting of a delicate structureless wall, lined by an internal softer and granular substance. In some parts the filaments are empty, but in others they contain free, rounded masses of the same substance as that which constitutes the soft lining of the filaments. These masses further can be observed in all stages of development up to the form represented in Fig. 7 D., which is a Trematode, provided with two very long caudal appendages. Now, the structure of these caudal appendages is precisely similar to that of the filamentous tubes; and I believe that the latter are, in fact, nothing but these caudal appendages enormously elongated, and then developing new zooids by internal gemmation. What is the origin of the *Bucephalus*, and what its ultimate fate, are problems yet requiring solution; but Von Siebold has suggested that it is derived from *Gasterostomum*.

A third mode of zooid development is that observed by Von Siebold in *Gyrodactylus*, which gives rise to young *Gyrodactyli*, by a process of internal gemmation within a cavity in the body of what appears to be the perfect form of this Trematode.

(f) Mémoire pour servir à l'histoire génetique des Trematodes. Annales des Sciences Naturelles, 1854.

Fig. 7.



Bucephalus polymorphus. A. Ramified sporocyst. B. Portion of the same more magnified. *a.* Outer coat. *b.* Inner. *c. d.* Germ masses in course of development. C. One of the germ-masses. D. *Bucephalus.* *a. b.* Suckers. *c.* Clear cavity. *d.* Caudal appendages.

Finally, the converse of the process of zooid development takes place in Nordmann's famous *Diplozoon paradoxum*, perhaps the only true double animal in nature, Von Siebold having discovered that it is the product of the conjugation of two original separate *Distomata*, belonging to the genus *Diporpa*. The *Diporpæ* approach and adhere by their ventral suckers, which eventually coalesce, so that no trace of their original distinctness is discoverable. The alimentary canals of the two communicate through the isthmus, and it is only after conjugation that the genitalia are developed.

(To be continued.)

LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.

Assistant-Surgeon to the Royal Orthopædic Hospital; Lecturer on Surgery at the Grosvenor-Place School; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital, etc.

LECTURE VIII.

CONGENITAL TALIPES VARUS.

MORBID ANATOMY.—*Continued from page 6.*

LIGAMENTS.—The condition of the ligaments in cases of club-foot has been very much overlooked by the majority of writers on this subject, and in some of the principal works on Orthopædic Surgery, no allusion whatever is made to their condition. Dr. Little does not describe any structural alterations in the ligaments, either in infantile or adult cases of club-foot. And Mr. Tamplin observes—"The contraction of the ligaments does not apply to infants (a);" and again, at page 53—"The increased severity in an infant is dependent solely on the greater amount of contraction of the muscles themselves; not so, however, in the adult. In these, the severity will be greatly increased by the contraction of ligaments from position."

Nevertheless, it is certain that these structures play a most important part in maintaining the deformity, and in resisting the attempts at cure, both in infantile and adult cases. In proportion to the length of time the deformity has existed previous to birth, and also in proportion to the severity of the muscular contraction, which determines the external form of

(a) Tamplin on Deformities, page 45.

the foot, the ligaments gradually adapt themselves in length and form to the altered position of the bones they naturally serve to connect, and maintain them so firmly in the deformed position in severe cases at birth, that the foot cannot be restored to its natural form and position even after division of all the tendons. The rigidity, therefore, with which the foot is held in its deformed position at birth, depends, not only upon muscular contraction, but also upon the extent to which this adapted shortening of the ligaments has taken place during the latter part of the intra-uterine growth of the bones. Now, it is an ascertained fact, that club-foot sometimes occurs as early as the fourth month of pregnancy. Rudolphi (b) says that these distortions are not unfrequently witnessed in embryos of three or four months; and Dr. Little (c) tells us that he has anatomically examined several cases of talipes varus in four-month fœtuses. During the remaining five months of uterine development, this process of adapted shortening or defective growth of some of the ligaments must be taking place; and we know that in the cases in which there is good reason to believe that the deformity did take place at this early period, as in cases associated with spina bifida, of which the case from which the astragalus, figured in No. 34, was an example, the rigidity of the foot, from adapted shortening of the ligaments, is met with in an extreme degree. In that case the foot could not be restored to its normal position even after division of all the tendons. The most obviously shortened and resisting ligaments were the deltoid on the inner side, the anterior portion of which prevented the navicular bone being drawn much outwards from the inner malleolus; and the posterior ligamentous bands of the ankle-joint, which prevented the os calcis being depressed to its normal extent. All the ligaments in the sole of the foot—the calcaneo-cuboid, calcaneo-scaphoid, and the other ligamentous bands passing between the tarsal bones, were also shortened; as also was the plantar fascia to a very marked extent. The shortened condition of the deltoid ligament is described by Mackeever (d), who states that, in the talipes varus of an infant, in whom the scaphoid and internal cuneiform bones were drawn close to the internal malleolus, he could not abduct the foot until he had divided this ligament.

As the ligamentous structures above mentioned are found in a state of adapted shortening in all severe, *i. e.* rigid, cases of infantile varus; so, also, are the opposing ligaments found in a state of elongation, more especially the outer portion of the ligament passing between the neck of the astragalus and the navicular bone, by the displacement of which the ligament is stretched over the exposed portion of the head of the astragalus; and also the anterior portion of the capsular ligament of the ankle-joint, which is stretched over the extruded portion of the superior articular surface of the astragalus. In the fœtal specimens I have examined, the ligament passing between the os calcis and cuboid bone has not appeared to be materially elongated, nor have any of the other ligaments on the dorsal or convex surfaces of the foot, though they become so at a later period.

The ligamentous alterations which I have described are only to be met with in very severe cases of infantile club-foot, which are fortunately the exception, and not the rule in point of numbers; and I may mention that we judge of the severity of the case in proportion to the ligamentous rigidity, rather than the external form. In many cases of this deformity which would be described as severe from the external form, there is but slight ligamentous rigidity, the foot being held in its deformed position by muscular contraction. In such cases the foot can be carried half-way or more towards its normal position, and the eversion of the anterior portion can always be carried comparatively further than the depression of the heel. In some cases of less severity, there is no ligamentous rigidity at all, and the foot can be restored by manipulation quite to its normal position. In these cases the deformity has probably taken place at a much later period of utero-gestation, than the rigid cases previously described, and muscular contraction alone maintains the deformity.

Muscles.—In slight, and even moderately severe, cases of congenital talipes varus, I believe that, as a rule, all the muscles are in a healthy condition, and developed to very nearly, if not quite, their normal size at the time of birth; but, if the deformity be allowed to continue, the muscles do not grow—from their state of inaction—as in healthy limbs, but remain of small size. I have dissected and examined microscopically all the muscles in several cases of tolerably severe infantile varus, in which ligamentous adaptation existed to some extent, and in which the astragalus exhibited in a marked degree the deviations in form above described, thus proving that the deformity had existed several months previous to birth; but in these cases the muscles did not exhibit, either to the naked eye or the microscope, any abnormal conditions. It is, therefore, an established fact, that appreciable changes in the muscular structures are not essential to the production of talipes varus; and that such changes do not necessarily exist at the period of birth, even in cases which would generally be considered as severe. This is in accordance with the general opinion, based on dissections, and the successful results of treatment.

My dissections, however, in some very severe cases, lead to a different result; and in two instances I have met with very extensive and important structural changes in the muscles. These may happen to be very rare and exceptional cases, but the frequency of such deviations remains to be proved by future dissections, and I am not aware that they have been hitherto described by any writer on this subject.

One of these cases was the child from which the astragalus, Fig. No. 34, was taken. It was affected with spina bifida in the lumbo-sacral region, and lived only a few hours. Both feet were contracted in the position of talipes varus of the most severe degree, and were drawn inwards and upwards beyond a right angle with the legs. For this specimen, which is now in my collection, I am indebted to my friend, Mr. Canton. Upon dissection the muscles, etc., of both legs presented similar appearances.

The gastroenemius was large, but unsymmetrically developed, the internal head and half of the muscle being very much larger than natural, and the external head and half of the muscle imperfectly developed; so that, instead of their being a central raphé leading upwards from the tendo-Achillis, the tendonous line passed towards the small external head. The inner half of the muscle could be easily cleaned on dissection, its surface being smooth and plump, as in well-nourished muscles of fine texture; while the outer half could not be cleaned from the quantity of fat mixed up with, and dipping between its muscular fasciculi, its condition evidently approaching that of the extensor longus digitorum. The tendo-Achillis was of large size, and extremely tense.

The tibialis anticus and *tibialis posticus* muscles were fully developed, if not somewhat hypertrophied, and their tendons extremely tense. These three muscles were considerably shortened in their entire length, and after removal of the skin, etc, were capable of being elongated only to a slight extent. *The extensor proprius pollicis* was about, or rather below, its natural size, and its tendon was tense, but to a less degree than the anterior and posterior tibial tendons.

The extensor longus digitorum and *peroneus tertius* might almost be said to be absent, as far as their muscular fibres were concerned; their tendons existed, but were of very small size, and connected above with an extremely attenuated layer of muscular fibres representing the extensor muscle. The muscular fasciculi were intermixed with fat dipping between them, so that their dissection could only be conducted to a very limited extent, and it was impossible to trace them to any connexion with, or origin from, the bones, or interosseous ligaments. The space between the outer border of the tibialis anticus and the fibula, which should be occupied by the fleshy belly of the extensor longus digitorum, was entirely filled with fat, in which no muscular fibres were traceable, even with the microscope. The existence of the rudimental portion of the extensor muscle above described, was only demonstrated by the most careful dissection from below upwards, beginning from the delicate tendons on the dorsum of the foot. The *extensor brevis digitorum* was in the same condition as the long extensor, traces of its muscular portion being found only on the most careful dissection.

The *peronei muscles* were moderately well developed.

Of the deep posterior muscles, besides the tibialis posticus, the fully developed condition of which has been described, the *flexor longus digitorum* and *flexor longus pollicis* were developed to about the normal size.

The *tendons* were somewhat displaced in adaptation to the altered position of bones; but I shall presently advert to the deviations of tendons in fœtal and adult cases of varus.

(b) Physiologie. 6tis Buch, p. 323.
(c) Op. cit. p. 270.
(d) *Edinburgh Medical Journal.* Vol. XVI., p. 220. 1820.

The entire dissection of this specimen I have detailed in the Third Volume of the Pathological Society's Transactions. I examined microscopically the rudimental portion of the extensor longus digitorum muscle, in conjunction with my friend Dr. Quain, whose investigations of the fatty degeneration and other abnormal conditions of muscular tissue, have thrown so much light on this interesting subject. The muscular fasciculi were larger than the fasciculi of the healthy muscles of the corresponding thigh; the transverse markings were very indistinct, and in many parts not traceable; the sarcolemma containing a granular material, studded in some parts with molecules of oil.

The second case of this kind which I examined was in a child, aged 10 weeks. The specimen is in Mr. Tamplin's possession, and exhibits very similar conditions to that which I have just described; but the arrest of muscular development was more extensive, involving all the muscles on the anterior part the leg, and also the peronei. The only trace of muscular fibre in the situations of these muscles was in a very thin layer of tissue connected with the tendon of the extensor longus digitorum. A careful microscopical examination of this specimen was made by Mr. Quekett and myself in December, 1852. We found no trace of muscular structure in the situation of the tibialis anticus, extensor proprius pollicis, or peronei muscles, and only a few small fibres connected with the tendon of the extensor longus digitorum. The place of the muscular structure in the above situations was occupied by fibrous and adipose tissue. The posterior muscles were well developed. The fibres of the tibialis posticus were larger than in any other specimen examined. The muscular fibres in the external half of the soleus muscle were in a state of granular and fatty degeneration. Mr. Quekett and myself examined five specimens of club-foot.

From the examination of the specimens which I have now described to you, it is certain that in some severe cases of talipes varus, there is at the period of birth a very defective condition of some, or it may be of all, the muscles on the anterior aspect of the leg, essentially depending upon an arrest of development of these muscles, and a degeneration of such portions as have been formed; that the same condition may co-exist in the peronei muscles; and that in these cases the outer portions of the gastrocnemius and soleus muscles are found in more or less advanced stages of fatty degeneration. It is also certain, that in these cases, the muscles or portions of muscles which may be considered as more immediately concerned in the production of the deformity, viz.:—the gastrocnemius and soleus (their internal portions more especially,) the tibialis posticus, and the tibialis anticus (when it escapes the arrest of development met with in the other anterior muscles,) are found to be well developed in their structural microscopic characters, and even hypertrophied as to their naked-eye proportional development. These are facts of which I am not prepared to offer you any explanation, but to which I shall hope to discover some clue in future dissections. In reference to my observations, however, Dr. Little has remarked (d), "Mr. W. Adams has witnessed absence of the extensor longus digitorum muscle. The author (Dr. Little) has never observed greater deficiency of this than other muscles. He (Dr. Little) has even found the long and short extensors well developed. The author (Dr. Little) believes, that the deficiency or atrophy and degeneration of muscles is in a precise ratio to the extent of the deformity, and the earliness of uterine existence at which the deformity is produced. The fact of hypertrophy of the part of the gastrocnemii, observed by Mr. Adams, is an important contribution to the pathology of varus, since it shows another analogy with non-congenital talipes, in which sometimes hypertrophy of the contracted muscles exists."

Now, I cannot but doubt the correctness of the explanation here given by Dr. Little, of the condition of the extensor muscles above described, because if the cause were traceable solely to the influence of a long retained position, the same condition, or at least an approach to it, should be found as a constant appearance in all severe cases of fœtal and infantile varus in which there is reason for believing, from the malformed condition of the astragalus and other indications, that the deformity had existed several months previous to birth; but this is certainly not the fact, as in several of such cases which I have examined—submitting every muscle to microscopical examination—I have found the extensor muscles perfectly healthy and well developed. There can be no doubt that the altered form of the astragalus is directly dependent upon the severity and duration of the deformity; but I have observed that when the deformity has existed long enough to alter the form of this bone by adapted growth, the muscles are sometimes found to be perfectly healthy. I have not yet made out any essential connexion between the abnormal condition of the muscles above described and any abnormal condition of the nervous centres or nerve-trunks; but further observations are necessary in this direction. Possibly they may be found to stand in the relation of cause and effect. The arrest of muscular development may possibly depend upon some abnormal condition of the nervous centres, and the deformity in these cases would be severe in consequence of its taking place at a very early period, viz.: between the third and fourth month, when the muscular tissue is in process of development. The degeneration may be traced partly to the same cause and partly to the influence of long continued inaction; but inaction alone would not sufficiently explain the conditions I have described.

However difficult it may be to explain the arrest of development and degeneration of certain muscles, or portions of muscles in some cases of talipes varus, the occasional existence of such conditions must be borne in mind when giving a prognosis in any severe case. The frequency of the existence of these conditions, the possibility of their improvement by the development of muscular tissue after free motion of the ankle-joint has been obtained by division of the contracted tendons; and their influence in retarding or preventing the perfect cure of the cases in which they exist, by the necessarily defective power of retaining the bones in the normal position, have yet to be ascertained. The existence of these muscular imperfections, when present to the extent described in the above cases, may be diagnosed by the total absence of the power of extending the toes, or the foot, as in paralytic cases; and when present in a less degree, by a deficiency in this power to a corresponding extent. Possibly these cases may have been occasionally mistaken for examples of congenital paralysis.

Tendons.—In fœtal and infantile specimens of talipes varus, I have always, in my dissections, found the tendons somewhat displaced in adaptation to the altered position of the bones of the foot. The deviations of the tendons are in proportion to the severity of the case, and affect, more or less, all the tendons passing from the leg to the foot; but it is only necessary at present to refer to those of practical importance, viz., the tibialis anticus, the tibialis posticus, and the tendo-Achillis. The deviations of the other tendons will be adverted to in the description of the severe adult deformity. (See Figs. 37, 38, and 39.)

The deviations of the tendons relate to their direction, their relations to each other, and to the bones. All the tendons in front of the ankle-joint are inclined to the inner side of the leg; and *the tendon of the tibialis anticus muscle*, as it crosses the ankle-joint (the point we select for its division) is placed very much to the inner side. In cases of extreme severity this tendon passes obliquely downwards across the inner malleolus, with an inclination backwards towards the inner cuneiform bone, which, in consequence of the altered position of the navicular bone, occupies a lateral position with respect to the leg; and in these cases it must be remembered, the toes have an inclination rather behind than in front of the transverse median plane of the leg.

The tendon of the tibialis posticus muscle does not occupy its normal position either with respect to the inner malleolus, or in its course between this process and the navicular bone. In severe varus, this tendon is less distinctly placed behind the inner malleolus than in the healthy foot, and is sometimes described as being situated on, rather than behind, this process. To some extent this is certainly correct, but the appearance is very much added to by the lateral obliquity of the os calcis, the tuberosity of which is directed towards the fibula, so that the inner malleolus itself is relatively more forwards; in fact, the posterior surface of the tibia is thus more or less brought into what might be regarded as the lateral aspect of the foot. The general result is, that the situation of the posterior tibial tendon, at the point we select for its division, viz., just above the malleolus, is relatively much more forwards than in the healthy foot; hence the practical rule given by Dr. Little, that when neither the tendon nor the inner edge of the tibia can be felt, as is commonly the case in fat infants, a puncture "exactly midway between the anterior and posterior

(d) Op. cit. page 277.

borders of the leg, on its inner aspect, will be a true guide to the position of the tendon." (e)

In reference to the second part of its course—between the malleolus and its insertion into the navicular bone—it is very important to observe that the posterior tibial tendon does not pass beneath the inner malleolus, and then obliquely downwards and forwards, in front of this process, towards its insertion into the navicular bone, as in the healthy foot; because the navicular bone itself is displaced by the contraction of the tibialis posticus muscle so as to be held in contact with the inner malleolus. This tendon, therefore, in all severe cases of varus, and even in cases of a moderate degree of severity, passes directly downwards from the inner malleolus to its insertion into the navicular bone, which it immediately reaches.

This fact, which, so far as I know, has not been pointed out by previous observers, is of the utmost importance in determining the position in which this tendon must be divided, and will be hereafter alluded to. At present, I will only remark that the extent to which this tendon admits of being drawn by manipulation into its normal position, must depend upon the severity of the case, and the ligamentous rigidity of the parts, from adapted shortening of these tissues during the existence of the deformity, which I have already described. To this I shall again refer when speaking of Mr. Syme's method of dividing—or, rather, attempting to divide—this tendon, "a little below and in front of the inner malleolus."

The Tendo-Achillis, in severe cases of infantile varus, does not occupy its normal position with respect to the axis of the leg, or its relations to the malleoli. I have already explained to you that, in consequence of the lateral obliquity of the os calcis, the tuberosity of this bone inclines towards the fibula, and is sometimes even in contact with it; it was so in the severe case from which the fœtal astragalus (Fig. No. 34) was taken; and I believe this deviation constantly exists, in a degree proportionate to the severity of the deformity.

It follows, therefore, that the tendo-Achillis, as it passes towards its insertion into the tuberosity of the os calcis, must incline towards the fibula, in a degree proportionate to the severity of the case, and this I have found in every dissection I have made. There is some difficulty in judging of the exact relations of this tendon by external examination, in consequence of the diminished prominence of the internal malleolus, the reason of which I have already explained to you. In a superficial examination during life you may even suppose this tendon to deviate to the inner, rather than the outer side of the leg. I have frequently heard it described as holding this position, but have never been able to satisfy myself that it is so placed. It always seems to me that the appearance is deceptive, and depends upon the diminished prominence of the inner malleolus, and also the relatively more forward position which this process occupies in consequence of the lateral obliquity of the os calcis, which, as I have described, tends to bring the posterior surface of the tibia into what might be regarded as the lateral aspect of the foot. If the position of the tendo-Achillis be judged of by its relation to the outer malleolus, which can always be felt, the difficulty disappears, and I believe it will always be found deviating towards the fibula in proportion to the severity of the case. This tendon is, therefore, further removed from the posterior tibial artery, than in the healthy foot.

Vessels and Nerves.—As the vessels and nerves in their course from the leg to the foot follow the direction of the deformity, they necessarily deviate, to a corresponding extent, in their general direction and relations; but, practically, these deviations are of little importance, as they do not very materially alter their relations with respect, to the tendons.

The observation made by M. Guérin with respect to the vessels and nerves in deformities is, that the nerves become structurally shortened, and, therefore, frequently tense and prominent, like the tendons; while the vessels retain their normal length, and are found to be somewhat tortuous, but still holding their deep relations, and not becoming superficial or prominent. I suspect, however, that this difference between the arteries and nerves is not well founded, but that both undergo structural shortening in cases of long-standing deformity, and adapt themselves to their required length. It is undoubtedly true that, in cases of long-standing contraction of the knee-joint, the perineal nerve is tense and prominent; so that, without the greatest care, it may be wounded in dividing the biceps tendon; moreover, after the tendon has been divided, the nerve springs up, so as to occupy its place, and feels as tense as the tendon did before division. This may deceive the inexperienced operator, and lead him to think the tendon has not been completely divided. Under these circumstances, the knife has been re-introduced, and the nerve divided, much to the astonishment and discomfort of the operator. To me, however, it appears that the prominence of the nerve in the ham may be explained by its superficial course, not being bound down by any dense structures, like the artery which enters this space deeply by a strong tendonous canal, and is also held close to the head of the tibia by the arrangement of the structures at its bifurcation, and the course taken by the anterior tibial artery in its passage between the bones, which materially contributes to fix the artery in this situation.

In my dissections of several severe infantile cases, and also of several non-congenital cases of club-foot in the adult, I have not found the posterior tibial artery and nerve exhibiting any disproportionate length; and I may observe that in the most severe infantile specimen the arteries were well injected; but I should consider them both to be equally and proportionably shortened. I have not seen the posterior tibial nerve become at all prominent or altered in its relations to the artery; and, as in club-foot both these structures are at a depth from the surface, and lie close to the centres of motion, the shortening cannot be considerable or of any practical importance, even in adult cases.

I have now, Gentlemen, described to you the morbid anatomy of talipes varus, as I have found it at the period of birth; and you will observe that this deformity is by no means so simple and uncomplicated with organic lesions as the writers on this subject would lead you to infer. It is not simply a displacement of certain bones, whether from muscular action or malposition *in utero*, which have previously been well formed, as first taught by Scarpa, and since adopted by nearly all the authorities on this subject, accompanied with contraction and structural shortening of certain muscles. But, on the contrary, malformation—consecutive or adapted malformation it may be called, the nature of which I have explained to you—of the astragalus is always present, in a degree proportionate to the severity of the deformity. Very important ligamentous alterations from adapted growth are also present in severe cases. Deviations in the direction and relative position of the tendons are constantly present; and a variety of abnormal conditions in the muscular structures are sometimes met with.

I hope the observations I have made will stimulate you to a further and more minute investigation of this subject by your own dissections, as it is only upon an accurate knowledge of the pathology of this deformity that we may hope to base a scientific and successful method of treatment.

In the next lecture, I propose to proceed with the description of the same deformity, viz., talipes varus, as met with in the adult, noting the consecutive changes which occur in advancing age, and examining more especially the mechanism of the deformity, in reference to the principles of treatment, the details of which I shall then lay before you.

(e) Op. cit. p. 299.

ORIGINAL COMMUNICATIONS.

CASES IN PRACTICE, WITH REMARKS ON CLIMATE (a).

CLASS NO. 1.—SUNSTROKE AND VARIOUS FORMS OF ILLNESS APPARENTLY INDUCED BY A HIGH TEMPERATURE.

By C. F. MOORE, M.D., L.R.C.S.I., etc.

October 31, 1851.—A seaman, aged 52, heavy-looking and of powerful frame, was seized with faintness after labouring for some hours at the pumps, washing decks, under a hot sun, in Malta Harbour, on board the steam-ship Pottinger.

He became insensible; eyes closed; extremities cold;

(a) I have been applied to lately to advise tours for the months of August and September, but consider these months unsuited for visiting the Mediterranean.

pulse 72. Heart's action apparently natural, but weak. Dry frictions to the body and extremities; to have ℥ij. of sherry, part of which only was swallowed. He also had a dose of senna mixture, with aromatic spirit of ammonia, which was to be repeated in an hour and a-half if required.

The patient now regained consciousness and the power of speech, complaining of severe pain in the forehead and at the back of the head. The veins of his head, neck, and arms had by this time become considerably distended; I bled him to ℥x., when, finding faintness supervene, I gave him ℥j. of sherry in a little water, having first applied a compress and bandage to his arm. The pulse was now 62. He stated that he felt relieved by the bleeding.

November 1.—Pulse 64; pupils natural; feels better. The aperient medicine did not act until this morning; complains of weakness. To continue arrow-root, bread, and fresh meat; the latter once daily. To keep quiet. He continued to improve, and on the 4th he was off the sick list.

Case 2.—September 24, 1852, off the coast of Portugal.—Mr. M., of short stature, aged 22. Complains of severe pain and throbbing in the right temple, feeling heavy and confused in his ideas. Pulse 80, small and labouring; surface covered with a cold perspiration; temperature of his head appears increased; vessels of head and neck congested. These symptoms were relieved after the action of three grains of calomel and twenty grains of compound jalap powder. He was taken ill when walking in the sun.

Mr. M. informed me that last year, 1851, on September 12, he was attacked with sun-stroke, when on a voyage up the Red Sea. Several dozen leeches were then applied to his head, and three forty-minim doses of tincture of opium were given to him. He was ill and weak for six weeks after.

Acting on my advice, Mr. M. did not proceed to India, as I considered his doing so would be attended with dangerous, if not fatal consequences, but returned to England from Gibraltar.

The two following cases, also caused by exposure to the sun, I have given at length in the *Dublin Quarterly Journal*, Vol. XII. I will, therefore, as briefly as I can, draw attention to their leading features:—

Case 3.—A gentleman of muscular, active frame, returning from India, took violent exercise under a hot sun in Egypt, in August, 1847. He felt sick and vomited; drowsiness, exhaustion, and insensibility followed; I gave him a little spirit of ammonia and tincture of lavender in water, and placed him in a cool apartment. He became able to speak, and complained of severe pain in back of his head and giddiness. Head and neck much congested; the pupils nearly insensible to light, and half contracted; abdomen full and hard. Treatment—Calomel five grains, jalap twelve grains. A purgative enema with spirits of turpentine gave much relief, removing large hard masses of fæces. I was now about to apply a number of leeches to his temples, when he stretched out his arm to show his desire to be bled; he endeavoured to express his idea in words, but only uttered a confused medley of English, German, French, and Italian. I then bled him to a pint and a-half, when he became faint and gradually fell asleep—continuing so for some hours. Immediately after the bleeding I gave him a tablespoonful of claret in some water. On waking, he spoke of the feeling of relief which the copious bleeding had afforded him. His eyes had resumed their natural appearance and sensibility to light; he complained, however, of a pain across his forehead, which was much relieved by the application of lint, wet with ether; he had then small doses of blue pill and extract of hyoscyamus.

August 13.—The pills continued in small doses; he also had aperient medicine, and a little henbane at night. In four days he had greatly improved, and continued well for several years. When last I saw him, five years after, he sought my advice for a severe attack of dyspepsia, apparently brought on by eating fruit, and exposure to a hot sun in Spain. He had occasional returns of dyspepsia when last I saw him.

Case 4.—A tall and powerful sailor, aged 40, complained of severe pain in the back of his head, of heaviness, indistinct vision, and faintness. His pulse was 58, small; the conjunctival vessels were congested; pupils slightly dilated, and rather sluggish in contracting on his being placed in bright indirect sunlight. The surface of the body rather cold. On inquiry, I found the man had, on the preceding day, been exposed to the sun for some hours, scraping the ship's topmast, with only a light straw hat on. We were at the time off the coast of Algeria, about latitude 37° N., which, at that time of year (July 17, 1850), is a very warm position to occupy. He was bled to 20 ounces, and took 4 grains of calomel, with 30 grains of compound jalap powder. A cooling lotion of spirit and water was applied to his head, and a light farinaceous diet ordered. In half-an-hour after the bleeding, the pain in his head was diminished, and his pulse had risen to 68, and he stated he "felt cooler" than before.

July 19.—He was able to resume duty, and continued to enjoy perfect health for years after.

Case 5.—A few days since, a gentleman of middle age, of short, stout make, travelling in the Vale of Avoca, Ireland, was seized with apoplexy, which proved fatal in a few days.

Case 6.—Another case of apoplexy, which ended in paralysis and impairment of the mental faculties, came under my notice, and likewise occurred in very hot weather.

I have seen some instances of a very common occurrence, namely, British soldiers on parade and marching, in their heavy accoutrements and uniform so unsuited to warm weather, falling faint and insensible from the combined effects of a hot sun, injudicious clothing, and fatigue; and when this occurs at home, we cannot be surprised at the loss of life which has ensued when our troops have been exposed to similar agencies in India, through inadvertence or bad generalship, as has unfortunately occasionally occurred.

Case 7.—In the summer of 1854, I attended a case presenting the usual symptoms of apoplexy, in the person of a nurse, aged about 70, which I attributed to the patient occupying a room much exposed to the sun; removal to a cooler apartment seemed much to aid the treatment and recovery of the patient.

16, Old Burlington-street, August, 1856.

ARMY MEDICAL REPORTS.

(Selected by Authority of the Director-General from Documents in the Office of the Army Medical Department.)

No. XXIV.

ON CHOLERA IN THE MAURITIUS IN 1854.

Extracted from the Annual Report on Diseases among the Troops in the Mauritius Command, from 1st April, 1854, to 31st March, 1855.

By GEORGE CLERIHEW, M.D., Staff-Surgeon 1st Class.

During this year (1854), the island of Mauritius has been devastated by one of the most destructive epidemics that have ever visited any country, malignant cholera having prevailed to an extent in comparison with which the worst epidemics of that disease that have occurred in Europe are trifling, and which has been paralleled only in the islands of Jamaica and Barbadoes, which, in climate and many other circumstances, bear a great similarity to this island. Sporadic cases of cholera have occurred in this island almost every year for twenty-five years past, but the disease appeared as an epidemic only once before, viz., in the end of the year 1819, having on that occasion arrived here in the course of its extension from the point where it originated, in the Delta of the Ganges, in 1817.

From the geographical position of Mauritius, its climate, both warm and moist, the character of its population, and the position and other circumstances of its principal town, it is to be expected that an epidemic of cholera should make very great ravages. The circumstances in which the two epidemics of this disease have occurred in Mauritius, are in some respects similar, while in others they are widely different. In both cases the disease arrived at Mauritius soon after an unusual prevalence of it on the continent of India; and, in both cases also, the island of Ceylon received it as well as Mauritius. The duration of the two epidemics was very similar, as might be expected in so small an island, the former having commenced on the 19th November, and terminated in Port Louis about the 21st January, and in the island generally about the 9th February; while the latter began in the middle of May, and continued in Port Louis until the end of July, and in the island generally until the end of August, with the

exception of the district of Flacq, in which it lingered longer, and in which, moreover, a return of the disease took place in the months of October and November, long after it had completely ceased in every part of the island. In both of these epidemics, the higher classes of society suffered comparatively very little, only one officer having had the disease, and that not fatally, in the former epidemic; while, in the latter, the officers altogether escaped. In both these epidemics, Creoles of African descent were particularly liable to the disease, and this class suffered much more than any other. In both epidemics the disease began in Port Louis and gradually radiated thence to the rest of the island. On both occasions it was observed that a large proportion of those persons who suffered from cholera were affected with worms, these having been vomited during life, and, in fatal cases, being found in the intestines after death; from which it appears probable that the existence of these parasites in some way gave a predisposition to the disease.

The season of the year at which the two epidemics occurred at Mauritius was totally different; that of 1819 commenced in November, which is the autumnal season, that in which most epidemics of cholera in Europe attain the highest intensity; while in 1854, the disease commenced in the middle of May, and continued to prevail throughout June and July, the very finest and coolest, and, with regard to all other diseases, the healthiest time of the year.

The weather for some time prior to both epidemics is said to have been different to what it is usually, having been, before the epidemic of 1819, very variable and unseasonable, the winds more constantly to the eastward than had been before remarked. With regard to the weather preceding this last epidemic more precise information is attainable, but it does not appear to me that any deduction can be drawn from it with certainty.

There is one singular and important characteristic of the epidemic of 1819, viz., the very small proportion of fatal cases relatively to the number of those affected. The ratio of mortality of cholera, as occurring among troops, has been found exceedingly uniform in all parts of the world, with the exception of the above-mentioned epidemic in Mauritius in 1819; but, whereas in Britain, in the Mediterranean, and in America, the mortality in cholera varies only from one death in 3 cases, to 1 in 3½, in Mauritius, on the contrary, in 1819, the mortality appears on the returns to have been only 1 in 8⅓. The mortality of cholera, however, is somewhat uncertain, for the reason that, in a severe epidemic of this disease, very many persons, although not attacked by cholera, with its specific and well marked symptoms, are, nevertheless, affected with diarrhœa, in all degrees of severity, and in some cases with vomiting.

There can be little or no doubt, that most of the numerous cases of diarrhœa, during the cholera epidemic, are the result of the choleraic poison operating in a minor degree, and that some of the more severe of these cases were by some persons set down as cholera, while others returned them as diarrhœa, reserving the term of cholera for those cases in which the specific symptoms of that disease are fully developed.

I believe therefore that the unusually small mortality of the epidemic of 1819 and 1820, arose, either from the epidemic being in a very mild form, or from the fact, that a large number of cases was returned as cholera, which, in later epidemics, would not have been included under that head. Accordingly, we find that the total mortality, in proportion to strength, was the same in both epidemics; viz., about 2 per cent., which is remarkable, as the last epidemic was much more severe than the other, as is evident from the fact that, in 1819 and 1820, the greatest mortality within twenty-four hours was 52, whereas in the last year, on June 11, the mortality reached 243; the average mortality of Port Louis, being, at ordinary times, 6 and a fraction per diem.

The great epidemic of last year broke out suddenly in the Civil and Criminal Prisons of Port Louis, in the middle of May; but, prior to that, various cases of cholera had occurred between the 1st of January and the 1st of May. Of these, 10 cases are well ascertained, (two of them being in the 85th Regiment,) and several proved fatal. Five cases of the disease are ascertained to have occurred between the 1st of January and the 25th of March, the date of the arrival of the Sultany, the vessel bringing immigrants from Calcutta, by which it is commonly supposed that the disease was introduced.

Between the 24th March and the day on which the disease appeared in the gaol, 5 cases occurred, of which 3 were fatal. The next well-ascertained case, was that of a child living in a well-ventilated house at Grand River, attacked on the 6th and died on the 7th of May. Her aunt, who had attended her, was attacked on the 7th and died on the 8th. On the 12th 2 fishermen died of the disease at Grand River; and, on the same day, a Creole servant, in Government-street, was attacked, and died in twelve hours. All these cases are ascertained to have occurred before the outbreak in the Civil Prison. The condition of the Civil Prison at the time of the outbreak was as follows:—There were living in the prison 655 prisoners, and 27 officials: total, 682. Of the prisoners, 156 were for misdemeanours; 356 were vagrants; 116 felons; 10 were women or debtors; and 17 committed for trial. On the 14th, the first case of cholera appeared in the misdemeanants' ward, and terminated fatally. On the 15th, 11 cases occurred, of which 10 were in the misdemeanants' ward; they were sent to the hospital, and 4 died. On the 16th, there were 6 fresh cases, of whom 2 died. On the 17th, 20 cases occurred, of which 6 were sent to the Civil Hospital, and died. On the 18th, 8 cases occurred, all fatal. On the 19th, 3 more, all fatal. On the 21st, 2 cases, both fatal. In all, 52 cases, of which 19 were fatal. Under these circumstances, the Prison Committee, at a meeting held on the 18th of May, resolved, at my recommendation, that the crowded prison should be immediately evacuated, and that for this purpose two ships should be hired, one to be used as a prison, and the other as a Hospital-ship.

The *Alexander*, a large, roomy ship, with good height between decks, was hired as a Hospital-ship, and moored in a convenient position in the harbour. Two hulks were hired as prison-ships; 326 prisoners were sent on board the hulks, 230 more were sent to Flat Island, and 24 were sent direct to the *Alexander* on the 21st of May. Afterwards, cases of cholera sent to Hospital were first received at the Civil Hospital, and were then either detained in that Institution, or sent to the *Alexander*, according to their condition.

The first case which occurred in the town, after the outbreak in the gaol, was the wife of the gaoler, who left the prison on the 21st, in perfect health, and died next day. Prior to this, while the disease was raging in the prison, not a single case had occurred in the town, and for the first two or three days after the 21st, a few cases only appeared, but they increased rapidly every day in number; and, by the end of the month, 639 declarations of deaths had been made, of which 377 were made after the 25th, and were all from cholera.

When the first cases occurred outside the prison, the weather was very favourable; and, at this time, the progress of the disease was slow, insomuch that, on the 27th, only 101 cases and 36 deaths had occurred in all since the commencement. However, on the 26th, 27th, and 28th, a very different and most unfavourable state of the atmosphere occurred, there being scarcely any wind, and the little there was being the humid warm north-west wind; immediately, the disease took a greater and sudden development, appearing in most parts of the town of Port Louis; and, at the same time, beginning to spread to the nearest parts of the country districts. On the 28th, the deaths in Port Louis amounted to 100 for that day.

At the time of the outbreak of the disease in the gaol, the drainage of the prison was in bad condition, there being in one of the yards an enormous cesspool, made in the course of the sewer, and full of accumulated feculent matter. One of the drains communicating with this cesspool opened, by a gully-hole, directly under the windows of the cells in the misdemeanants' ward, where the first case of cholera occurred. The supply of water to the prisons for the flushing of these drains was insufficient. Many of the cells in the misdemeanants' ward were very insufficiently ventilated, having only a small aperture in the back wall for this purpose.

By the end of May the panic became universal in Port Louis, and most of those who were able to leave the town immediately fled to the country. Every kind of vehicle was used alike by rich and poor, and enormous prices were paid for any kind of conveyance which offered a possibility of escape from the plague-stricken town.

It is supposed that from 5000 to 10,000 of the inhabitants fled, and all the villages in the country were crowded to suffocation with fugitives from Port Louis. The town assumed the aspect of a desolated city; every kind of business was

suspended; half of the shops being shut up, as well as a great part of the dwelling-houses. The streets were empty and silent; the only sound to be heard being the unceasing rumble of the dead carts, carrying the victims of the pestilence to their last resting-place. The shops, and other places of business which remained open, were almost destitute of assistants; and the public offices, in like manner, although of necessity kept open, were disabled by the absence of the clerks, who, like almost every one else, were either sick themselves, or were in attendance on their sick or dying relatives. At last the cemeteries were full, and incapable of receiving any more of the still numerous dead; and it became necessary to open two new separate places of sepulture on the sea-shore.

The epidemic raged with constantly increasing violence all over the town until the 11th of June, when it reached its climax, there being on that day 243 deaths. It then began to decline; the deaths on the following four days respectively being 138, 168, 111, and 92. On the 16th, the mortality rose again to 213, but on the following day it fell again to 92; and on the 18th, it was 129.

From this day a constant and rapid diminution took place until the end of the month; and, on the 30th, the number of deaths from cholera was only 7. In July, the mortality was confined to the outskirts of the town, and amounted to 64; the last case in Port Louis occurred on the 1st of August.

The course of the disease, in the town of Port Louis, was most irregular, and incapable of being explained by any reference to the comparative sanitary condition of different parts of the town. Generally speaking, the disease was most prevalent at the two opposite outlets of the town, towards Grand River and Rochebois; while the neighbourhood of the harbour, and the upper part of the Champ de Mars, were less severely affected; but to this there were numerous exceptions. Parts of the town, where putrid matters were abundant, and the houses situated in unhealthy places, often suffered less than others in better circumstances.

The establishment of the Mauritius Dock, situated on a low mud flat at the edge of the harbour, suffered very little, but it is to be observed that the labourers there employed were mostly Chinese, whose comparative immunity from the disease was very remarkable. The neighbourhood of the bazaar, although extremely crowded, and abounding in animal and vegetable matters more or less decayed, suffered less than the healthiest part of the town. A singular result occurred in the establishment of the Inodore Company, whose business it is to collect the night-soil, and prepare it into artificial manure. To this establishment belong 150 Indians, of whom 90 are constantly employed in collecting the refuse of the streets, and at night, the night-soil from the privies; of these 90 men, 15 had cholera, and 10 died. Of the remaining 60, who are employed on the premises of the company outside the town, in the manipulation of the manure, only 2 were attacked, and these were old worn-out men. It is probable that the former class of labourers got the disease from being obliged to penetrate into the yards of infected houses, but it is remarkable that they did not, either by their own persons, or by the old clothes, morbid discharges, and other infected matters, which they collected and brought with them, communicate a greater amount of disease to their fellow-labourers working outside the town.

In the Camp Benoit, a collection of Indian huts close to Grand River, (where the disease was very severe), and in the worst possible sanitary condition, very few cases occurred, which may perhaps be attributable to the fact that about 100 of these Indians are charcoal-burners, of whom it is said, not one suffered from cholera, and it appears also that the disease did not penetrate into any of those houses in Port Louis, where depôts of charcoal are kept.

The Champ de Mars and Champ de Lort suffered as much as any other part of the town, although they are the best situated, the best ventilated, and ought, from the social position of the inhabitants, to be in the best sanitary condition.

The comparative immunity from cholera enjoyed by the numerous Chinese resident in Mauritius, is very remarkable. There were in Port Louis, during the epidemic, about 1800 Chinese, of whom 200 were dock labourers. The total mortality among this body of men was 2, although they lived in Port Louis—in the midst of the epidemic, and their habits, and the condition of their dwellings, would seem to predispose them to the disease.

A Chinese Doctor, holding a diploma obtained, as he said, after a course of study at Honan, and who practised among his countrymen during this epidemic, stated that, in all, 45 Chinese were attacked by cholera, of whom one died in Port Louis from an imprudence committed during convalescence, and the other died in Pamplemousses. He asserted, that, out of 194 persons he attended in cholera, he lost only 2; and that he had already seen four epidemics of cholera in China. When questioned as to the habits of the Chinese, he stated that they did not drink anything but tea, and ate animal food freely; that they smoke a great quantity of opium, and that this habit was the great preservative, although, if persisted in after the commencement of the disease, it was equally certain death. Whatever truth there may be in these statements, there is no doubt as to the extremely small mortality among the Chinese during the epidemic.

It is singular, that in October, two months and a half after the final cessation, in Port Louis, of the epidemic, three fatal cases occurred in that town, viz., Mr. Assistant-Commissary-General Ackroyd, who died on the 13th, and two of his children, who died on the 17th and 23rd. It is to be observed, that the house inhabited by Mr. Ackroyd was in the immediate vicinity of a large building which had been employed during the epidemic as a Cholera Hospital, and which still contained a quantity of infected clothing; otherwise, the appearance of the disease in this family at this time is inexplicable.

Mr. Ackroyd himself was attacked on Friday morning at 6 o'clock, by diarrhœa and rice-water dejections, which continued until between 11 and 12, then ceased, and did not again return. About 10 o'clock he vomited for the first time; at 11 he had the first attack of cramps; and after this the symptoms of malignant cholera, coldness of surface, shrivelling of hands, whispering voice, blue colour, etc.; and he died about 9 in the evening. Within three days after his death, two of his children were seized with the disease, of whom one died in the stage of cholera, the other in the consecutive typhoid fever. Of the remaining four children, two had slight symptoms of the disease. It is difficult to account for the severe outbreak of cholera in this family, at a time when there had been no other case of disease in the town for more than two months; more especially as, during the epidemic, the whole family had been freely exposed to the emanations from the bodies of cholera patients, when they had a European servant, who died of the disease in their house; and when they also received into it the children of a family of whom several had died of the disease.

In the end of May and beginning of June the disease began to appear in the country districts, radiating from Port Louis, as its original focus, and gradually advancing over the country, so as to arrive at the most distant parts of the island in about a week from Port Louis. It is true that, in almost every district, some cases occurred in a shorter time than this; but these were persons newly arrived from Port Louis, who had received the poison there, and the epidemic did not become general for some days afterwards, when the disease, in its regular advance from Port Louis, reached that part of the country; and then cases occurred in people who had never been in the neighbourhood of an infected person. Thus, in the district of Black River, the disease appeared on the 3rd of June at Petite Rivière, on the 4th at Bambou, and on the 7th at Plaines St. Pierre, steadily moving forward from Port Louis. In like manner the disease became general at Mahebourg and Savanne on the 5th of June, having previously appeared in the intermediate places in the order of their vicinity to Port Louis. In other districts, as Rivière du Rempart, the progress of the disease exhibited the same capricious irregularity that has so often characterised it in European countries, some of the estates being affected at a very early period; others, at no great distance, several weeks later; and many escaping altogether.

1. The localities most severely affected presented the same local characteristics as those places which have always suffered more severely in European epidemics of this disease, viz.:—places with a low site, in the vicinity of the sea or large streams, with a humid climate, a dense population, and commercial activity. The town of Port Louis itself presents all these characteristics; as do also, more or less, the neighbouring localities of Grand River and Roche Bois; the village of Flacq, which suffered very severely; and the fishing villages on the coast, as Mapou, Poudre d'Or, etc. The different degrees in which different sugar estates suffered from the

epidemic are very remarkable, a large number having escaped altogether without a single case, while some suffered with excessive severity, as, for instance, the estate of Bon Espoir, in Rivière du Rempart; on which, in the month of June, there were 107 cases and 66 deaths in a population of 355. On the estate of La Caroline, in Flacq, 146 cases and 115 deaths occurred in a population of 410 persons.

2. The presence of water, particularly of running streams, seemed everywhere to increase, in a marked manner, the prevalence of the disease; while those places in the neighbourhood of which there was no running water, almost entirely escaped. Thus, in the district of Rivière du Rempart, those estates which were supplied with water by means of artificial canals, suffered excessively from the disease; those that drew their water from the river suffered in the next degree; while those properties which were supplied with water from wells, in most cases escaped altogether, and never had more than two or three cases.

In the extensive Plaines des Papayes, in the Pamplemousses district, in which the water supplied is by means of wells, there was no cholera; while near the borders of the canals, the disease was very severe. In Flacq, scarcely a case of cholera occurred on any estate supplied by wells, while those that were dependent on artificial canals suffered with great severity. In Plaines Wilhems, I know of only one estate supplied by wells, and this one escaped, while the neighbouring properties were severely visited. It thus appears that the presence of water, in whatever way it may operate, has a marked effect in increasing the prevalence of cholera; and this also indicates that the ordinary progress of the disease is determined by other causes than human intercourse.

3. Both in Port Louis, and the colony generally, the African race suffered infinitely more than any other. The greatest mortality of all was in Port Louis; and, next to that, the disease was most destructive in the Creole villages; that is, aggregations of cottages or huts inhabited by natives of the colony of African descent.

4. As in other countries, the disease was not universally diffused over every part of a district at once, but, while some localities escaped altogether, others were attacked, not simultaneously, but in succession, the disease, in many cases, wandering about in a most unaccountable manner, being almost universal at one place, while others, at no great distance, were perfectly free from it.

5. In every district of the Island, many properties escaped altogether, without a single case of cholera occurring on them. Very many of those which thus escaped are unknown, but the following properties are ascertained to have remained free from the disease, viz:—In Pamplemousses, 7 estates are known to have escaped altogether; in Rivière du Rempart, 17; in Grand Port, 8; in Savanne, 12; in Black River, 16; in Plain Wilhems, 3; and in Flacq, 14.

6. The disease seemed to be especially severe in those public buildings in which the residences of the inmates were arranged in the form of closed courts or yards, surrounded by dwelling-houses. The prison of Port Louis, where the epidemic first appeared, is a signal instance of this, and the case of the Lunatic Asylum at Grand River is equally remarkable. In this Institution, the male patients were lodged chiefly in the upper floor of the main building, which is of two storeys; while the dormitories of the females were in houses of one storey, ranged around small yards. In the upper floor of the main building, not a single case of cholera occurred, while in the female wards it was so severe that half of the inmates perished. In a private residence, five miles from Port Louis, where the stables and lodgings of the grooms and others were arranged in the form of a close court, no less than sixteen servants died during the epidemic.

It appears that the stagnant atmosphere necessarily existing in such courts, is most propitious to the rapid increase and concentration of the poison.

7.—On the symptoms and treatment of the disease, there is scarcely anything to be said, as the cholera in Mauritius presented precisely the same symptoms which are now, unfortunately, so well known in almost every part of the world; and, with regard to the treatment, nearly all the means that have been had recourse to elsewhere have been tried in Mauritius, and, except in mild cases, with the same want of success. From all that I have seen and heard of the treatment of the disease here and elsewhere I believe that the most successful treatment is the emeto-cathartic; that is, the treatment being begun by the administration of an emetic followed soon afterwards by a purgative, and then the usual application of stimuli, externally and internally, but very little opium.

8. There seems to be considerable doubt, whether this disease originated in this island, arrived here by atmospheric transmission, or was imported in a ship. It is commonly supposed in the island that the cholera was imported by a ship named the "Sultany," which left Calcutta on February 11, 1854, with a crew of 80 men, and 375 immigrants, and, after a voyage of 34 days, arrived at Mauritius on March 24. Many ships conveying immigrants from Calcutta, have 2 or 3 cases of cholera, while still in the Hoogly, but no more afterwards; but, in the case of the Sultany, this was reversed, for no case of cholera occurred on board this vessel until the 14th day from the Sand Heads, when the disease broke out suddenly, at one corner of the 'tween decks, and gradually spread to the rest of the ship. 30 of the passengers died of cholera before the arrival of the ship at Port Louis, while 5 more died at the Bell Buoy, from cholera and dysentery. The ship then proceeded, on April 7, to Flat Island, where the immigrants were landed, and remained in quarantine, till May 1, during which time no case of cholera occurred among them. It is tolerably evident that the disease was not introduced by these immigrants; because, if it had been so, it would have broken out on some of the estates in the country to which these Indians were sent. It did not do so; Port Louis having been the only focus of the disease, from which all the other parts of the island received it. It is, however, alleged that the quarantine of the ship while at the Bell Buoy, was ineffectual, and that the crew frequently communicated with the shore. On the other hand, it is to be remembered that various cases of cholera occurred in Mauritius shortly before the arrival of this ship, as elsewhere stated; and, in the neighbouring island of Bourbon, in the beginning of May, it appears there were a few cases of cholera, and an universal epidemic of diarrhœa, which were reported in the newspapers of that island, before the outbreak of cholera in Mauritius was known there.

In Bourbon, a long and strict quarantine was established for all vessels arriving from Mauritius, and Bourbon escaped an epidemic of the disease; but it is singular that Madagascar in like manner escaped, although there was unrestricted communication with Port Louis throughout nearly all the epidemic; deaths from cholera even occurring on board vessels coming from Mauritius, and quarantine was not put on at Madagascar until near the termination of the epidemic at Mauritius.

9. As to the mode of diffusion of the disease, it appears evident to me, from the manner of its progress over the island, that the ordinary and normal mode of the propagation of cholera is by diffusion through the atmosphere; but special cases are not wanting to prove that it may be, and in rare cases is, carried from place to place by human intercourse. If this be admitted, it follows that cholera ought practically to be treated as being occasionally contagious, although there is no reason to believe that it is reproduced in the bodies of the sick.

10. In considering the extent to which the troops were affected during the epidemic, it is to be observed that they were likely to suffer in a high degree, the garrisons being all situated in localities very much exposed to the ravages of the pestilence. Thus, more than two-thirds of the entire garrison of Mauritius were, during the epidemic, posted in the town of Port Louis, where the disease was more severe than in any other place. The other garrisons were, all of them, in small sea-port villages, and the disease has been very severe in all such places.

It is, then, matter of congratulation that the loss of the troops in this terrible and almost unexampled epidemic has been less than what is usually experienced among them in any ordinary outbreak of the disease occurring within the tropics.

As the epidemic broke out during the drill season, the number of troops in Port Louis was unusually great, and the barracks somewhat crowded. The first measure adopted, therefore, on the appearance of the disease, was to give more room and better ventilation, by encamping a part of the troops in the barrack-square, which, fortunately, was very extensive. The soldiers were then confined to barracks, and intercourse with the town cut off. The windows of the bar-

rack-rooms were constantly kept open, day and night, and the bedding was aired in the sun every day.

The soldiers were required to wear cholera belts; they were frequently inspected, and admonished to report immediately the slightest appearance of bowel complaint. The clothing, bedding, bedstead, and neighbouring walls were carefully disinfected on the occurrence of a case of cholera. These measures were carried into effect at all the military posts in the island, and the results were very satisfactory. Besides very numerous cases of diarrhœa of every degree of severity, 57 cases of severe and well-marked cholera were admitted in all, of which 34 terminated fatally, being the total loss of the troops by this epidemic. In the town of Port Louis the loss of the troops amounted to 28 men, being about 1 in 42; while the loss of the civil population of the same place was no less than 1 in 12; and it is to be remarked, that the Line barracks and Artillery barracks in Port Louis are not, as in most other tropical stations, situated on a height outside the town, but are actually in the town itself, on a low site, only ten feet above the sea level, and not even separated from the town by a surrounding wall, the windows of the soldiers' dormitories actually opening on streets of the town. Although the mortality of the troops above-mentioned was very moderate, in such a frightful epidemic, several of the deaths included in it were, in great measure, caused by special circumstances:—1st, two of the fatal cases were in soldiers who were on guard at the infected prison at the time of the outbreak of the disease; this guard was immediately withdrawn; 2nd, when the prison was evacuated and the prisoners dispersed to different places, the police force was found to be very inadequate, and the civil government made urgent application to the military authorities for some soldiers to act as policemen. The case being very urgent, this was complied with. Forty soldiers were employed on this duty, and of these 40 men 4 died of the epidemic in three days; the remainder were immediately recalled. From this it may be inferred that the mortality among the troops would have been very much greater if they had not been confined to barracks; as, if at large, they would have been constantly entering all kinds of infected places, and there they would have got the disease, whether contagious or not.

11. The following table exhibits the total mortality in the Mauritius by the epidemic, as also the comparative mortality of the three great classes of the population of the island, viz., the general population, the Indians, and the ex-apprentices, the last-mentioned being those who were formerly in a state of slavery, and their children:—

Return showing the Mortality from Cholera in Mauritius from 25th May to 31st August, 1854.

District.	General Population.	Ex-Apprentices.	Indians.	Total.	Male.		Female.		Total Deaths.	Total Resident Population.
					Adults.	Young.	Adults.	Young.		
Port Louis	995	1954	543	3492	1672	414	1015	391	3492	49909
Pamplemousses	123	706	556	1385	862	122	315	86	1385	32036
Rivière du Rempart	27	145	184	356	342	24	54	26	356	16036
Flacq	175	201	242	718	468	70	131	49	718	24186
Grand Port	53	236	143	432	259	52	99	22	432	19082
Savanne	13	106	128	247	168	22	47	10	247	9871
Black River	29	115	110	254	157	28	48	21	254	10091
Plaines Wilhems	112	257	232	601	372	60	124	45	601	13893
Moka	11	112	42	165	107	10	37	11	165	5725
Total	1538	3832	2280	7650	4307	802	1870	671	7650	180823

Deaths in Public Institutions for the Week ending August 2:—

	Males.	Females.	Total.
Workhouses	39	37	76
Prisons	..	..	..
Military and Naval Asylums	5	..	5
General Hospitals	34	23	57
Hospitals for Special Diseases	7	3	10
Lying-in Hospitals	1	2	3
Military and Naval Hospitals	..	..	..
Hospitals for Foreigners, etc.	1	..	1
Lunatic Asylums	1	1	2.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING MAY AND JUNE.

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seamen's Hospital.

LITHOTOMY.

Number of cases, 5; recovered, 2; died, 3.

Case 1.—St. Mary's: Mr. Walton.—A man, aged 24, symptoms of stone one year; a mulberry calculus, the size of a pigeon's egg, was removed. Some bleeding occurred afterwards, but it was arrested, and the patient made a good recovery. *Case* 2.—Guy's: Mr. Callaway.—A lad, aged 18, admitted in consequence of having passed a piece of French chalk attached to a string down his urethra. It could not be withdrawn, and was believed to be impacted in the prostatic tract. A staff having been passed down the urethra into its membranous portion, Mr. Callaway cut down upon it in the perinæum. The string attached to the chalk was divided by the knife, and the foreign body slipped into the bladder. Under these circumstances a narrow incision in the prostate was made, and an ordinary lithotomy operation performed. The foreign body was easily seized, and proved to be about an inch and a-half in length, and about the thickness of a No. 8 catheter. The patient recovered well. *Case* 3.—The Westminster.—A boy, aged 6, in fair health, but who had suffered severely from the symptoms of stone. A lithic acid calculus, the size of a filbert, was removed by the usual operation. Very little bleeding occurred. Symptoms of low peritonitis supervened on the third day, and, in spite of free treatment by opium, death occurred on the sixth. No autopsy was permitted; the wound was sloughy. *Case* 4.—Guy's: Mr. Cock.—A man, aged 59, a hairdresser, from the country. He was of temperate habits, but having suffered from stone for upwards of ten years, was completely worn out by pain, etc. He was in miserable health, and his urine was habitually loaded with pus and mucus. A large stone filled the bladder. The operation was performed at his own urgent solicitation, and almost without a hope of success. A stone, the size of a goose's egg, was removed without difficulty, and but little bleeding occurred. Its composition was lithic acid, with a thick encrustation of phosphates. The man required an unusually large quantity of chloroform. He never rallied well from the operation, and death took place next day. The autopsy showed a fatty condition of the liver: both the kidneys were destroyed to a great extent by old disease, and were also involved in recent pyelitis, their cavities being filled with muco-purulent fluid, and their structure showing numerous points of pus; the bladder had not been injured in the operation, but its coats were much diseased and in a half suppurating condition. *Case* 5.—Guy's: Mr. Hilton.—A man, aged 70, in poor health, having suffered from stone for three years. Two lithic acid calculi, each the size of a small damson plum, were removed. The operation was quickly performed, and very little blood was lost. The patient sank into a feeble state, and died on the seventh day. At the autopsy, the viscera generally were in healthy condition. The bladder was small and hypertrophied. The kidneys and ureters were healthy. Some extravasation of blood behind the pelvic fascia. The scrotum was in a sloughy state, apparently from extravasation, and the wound itself was also sloughy, and showed no attempt at granulation.

LITHOTOMY IN THE FEMALE.

Guy's: Mr. Hilton.—A girl, aged 18, in good health, was admitted, stating that she had four months before passed a hair pin into the urethra. Since the occurrence she had suffered from all the symptoms of a foreign body in the bladder, and these had gradually increased in severity. The pin could be felt by examination per vaginam. In the bladder itself,

nothing but a mass of calcareous concretion could be felt. An incision having been made in one side of the urethra, a part of the pin was seized, and being held in position was cut through and extracted, after which, by a little manœuvering, the other portion was removed without further injury to the viscus. The stone which adhered around it was crushed and removed piecemeal, about two ounces of fragments being taken away. The patient recovered well, but as yet she suffers from some incontinence of urine.

REMOVAL OF FOREIGN BODIES FROM THE BLADDER.

Case 1.—Guy's: Mr. Hilton.—A hair pin encrusted by deposit in the bladder of a girl, aged 18. See "Lithotomy in the Female." *Case* 2.—Guy's: Mr. Calloway.—A piece of French chalk in the bladder of a young man. Extraction by lithotomy. See "Lithotomy," Case 2. *Case* 3.—The Metropolitan Free: Mr. Hutchinson.—A man, aged 30, was admitted, with the history that he had, three days before, broken a gutta percha bougie into his bladder, the portion left behind being believed to be about three inches in length. He suffered very little irritation; the urethra was quite pervious, but had formerly been the seat of a dilatable stricture. A prolonged attempt was made, by means of forceps constructed for the purpose, introduced into the bladder to seize the foreign body, but without success. The bladder was injected to its utmost capacity. A few hours after this attempt two pieces of catheter passed spontaneously into the urethra, and were removed by carefully squeezing them forwards. They fitted together, and also with the portion from which they had been originally broken, and evidently made up the whole of the missing fragment. The man recovered thenceforth without an ill symptom. The portions had been detained a week in the bladder, and it appeared their escape had been procured by the dilatation to which the urethra had been subjected just before.

HERNIOTOMY.

Number of cases, 17; recovered, 6; died 11.

Case 1.—Guy's: Mr. Hilton.—A woman aged 50, in good health. Hernia femoral, strangulated 72 hours; the size of a hen's egg; sac unopened. The symptoms were severe. In the operation, after division of the stricture, the sac was lifted forward and a portion of gut was distinctly felt to slip up, a portion of omentum however remained irreducible, and as from the history it appeared this had been down for five years past—it was allowed to continue *in situ*. Recovered well. *Case* 2.—Guy's: Mr. Cock.—A woman, aged 40, feeble and delicate. Hernia femoral; long irreducible; increased in size and strangulated for 5 days. The tumour was large and tense; the abdomen was tender and there were all the symptoms of peritonitis. Previous to her admission a large sinapism had been applied to the abdomen, but very fortunately no purgative had been given. The sac was not opened, but the stricture having been divided, all its contents were easily returned. The symptoms did not cease after the operation, and calomel and opium were accordingly administered. The symptoms of peritonitis ceased as soon as the mouth became sore. On the third day an enema was given, and much scybalæ brought away. Recovered well. *Case* 3.—St. Bartholomew's: Mr. Lawrence.—A male infant, aged 13 months. Hernia congenital; strangulated several hours; sac not opened. Recovered well. *Case* 4.—University College: Mr. Erichsen.—A man, aged 31. Hernia inguinal, strangulated four days. The sac was opened and the bowel found so firmly adherent that it could not be reduced. The stricture having been freely divided, the gut was left *in situ*. Some sloughing of the scrotum ensued, but the patient made, notwithstanding, a good recovery. *Case* 5.—The London: Mr. Ward.—A man, aged 26. Small congenital; limited to the inguinal portion of the cavity of the tunica vaginalis, the body of the cavity being occupied by bloody fluid. Strangulation 48 hours. Symptoms very acute. Sac opened; gut highly inflamed; old and recent adhesions to sac detached. Death in 25 hours from peritonitis, accompanied with diarrhœa. Opiate treatment and ice. *Case* 6.—St. Mary's: Mr. James Lane.—A woman, aged 43. Hernia femoral; strangulated 2 days. Sac opened. Recovered. On opening the sac a large quantity of fluid escaped, and the protruded bowel returned without any division of the stricture being necessary. *Case* 7.—St. George's: Mr. Prescott Hewett.—A woman, aged 52. Hernia femoral; strangulated two days. Sac opened. The sac contained small intestine, congested but not inflamed. Recovered. *Case* 8. — St. Thomas's: Mr. Mackmurdo, — A woman, aged 36. Hernia femoral; strangulated 3 days or more. The sac was opened, and the bowel found very dark coloured and lustreless. After division of the stricture it was found that the adhesions were too strong to admit of reduction. The bowel was left *in situ*, and on the following day gangrene having occurred it was opened. The bowels did not act, and the symptoms continued. Death from peritonitis occurred on the 4th day. *Case* 9.—St. Mary's: Mr. Lane.—A woman, aged 28. Hernia femoral; strangulated 24 hours. Symptoms urgent. The sac was opened and reduction effected. At first, the patient appeared relieved, but symptoms of peritonitis subsequently developed themselves, and death occurred 48 hours after the operation. The post-mortem showed acute peritonitis. *Case* 10.—The London: Mr. Adams.—A man, aged 66. Hernia inguinal; strangulated 2 days. Sac opened. Death on the 3rd day. *Case* 11.—St. Bartholomew's: Mr. Stanley. —A woman, aged 72. Hernia femoral; strangulated 48 hours, the size of a walnut. The sac was opened, and found to contain adherent omentum. No ill symptoms followed the operation, but she gradually sank into a feeble state, and died a month afterwards. *Case* 12.—St. Bartholomew's: Mr. Lawrence.—A woman, aged 57. Hernia femoral; the size of a walnut, strangulated several days (?). No marked symptoms. Sac not opened. Death on the 5th day. At the autopsy, the gut was found healthy, and the only lesion discoverable was congestion of the lungs. *Case* 13.—St. Bartholomew's: Mr. Paget.—A sickly ailing woman, aged 37. Hernia femoral; strangulated 6 hours. Sac opened. Death from peritonitis and pleurisy on the 6th day. *Case* 14.—The London: Mr. Curling.—A woman, aged 57. Hernia umbilical, of large size, and strangulated 6 hours. The sac was opened and found to contain both omentum and intestines. Acute inflammation of the sac followed, and extended to the peritoneum. Death on the 5th day. *Case* 15.—Guy's: Mr. Cock.—A woman, aged 65. Hernia femoral; strangulated 2 days. Peritonitis existed at the time of the operation. The sac was opened, and its contents, both omentum and intestine returned. The woman did well for a day, but on the second profuse diarrhœa set in. Opium treatment was pursued, but death followed on the 5th day. No autopsy. Previous to her admission into the Hospital, purgatives had been freely given. *Case* 16.—St. Bartholomew's: Mr. Paget.—A woman, aged 50, admitted with a femoral hernia which had been supposed to be strangulated 3 or 4 days, and for the reduction of which the taxis had been much abused. She had been extremely sick, but from the effect of a dose of castor oil, a slight action of the bowels occurred shortly before the operation. The sac was opened, and nothing found but a portion of healthy omentum. She was very prostrate at the time, but had not the usual symptoms of peritonitis. The sickness continued unabated afterwards, and the bowels did not act. Opium was freely given. Death occurred on the 4th day. At the autopsy a small perforating ulcer was found near the pyloric orifice of the stomach. There had not apparently been any escape of the contents of the stomach, and the signs of peritonitis were not seen. No bowel had ever been down, and it was evident that the symptoms had from the first been due to the perforation of the stomach, and not to the hernia. *Case* 17.—Guy's: Mr. Birkett.—A man, aged 43, the subject of oblique inguinal hernia on the left side, was admitted in a state of collapse, although from the patient's account, which was with difficulty obtained, strangulation had not existed more than 13 hours. The bowel was returned by operation, but the man died 3½ hours afterwards. Post-mortem: a large quantity of bloody serum in the peritonæum, and extreme congestion of the intestines generally.

LIGATURE OF ARTERIES.

Case 1.—St. Thomas: Mr. South.—A man, of middle age, was admitted on account of a large tumour, filling the right iliac fossa, and pulsating forcibly. It had been noticed only three weeks, and was rapidly increasing. The thrill was distinct, and there was no doubt as to the aneurismal nature of the disease. The man had suffered paroxysms of intense pain, and was extremely anxious for some measure to be tried. It being evident that the common iliac was enlarged, Mr. South determined to tie the abdominal aorta. The operation was dexterously and quickly performed, the patient being under the influence of chloroform. The patient never

rallied well, and, although no symptoms of gangrene in either extremity were apparent, yet he sank and died about forty-two hours after the operation. At the autopsy the ligature was found to have been cleanly placed on the aorta just above its bifurcation. The peritonæum had not been opened. The aneurism, which was spurious, had commenced in the external iliac, and had extended up the side of the common iliac to the level of the fourth lumbar vertebra. The lungs were very much congested.

TREPHINING OF THE SKULL.

St. George's: Mr. Johnson.—A lad, aged 18, was admitted with an extensive compound and comminuted fracture of the skull. The dura mater was torn, and the brain injured. The trephine was used, and the depressed portions of bone removed. Hernia cerebri followed. Death on the fourth day.

EXCISION OF JOINTS, ETC.

Case 1.—St. George's: Mr. Tatum.—A lad, aged 19, under care on account of strumous disease of the knee-joint. Excision of the articulating ends of the bones was performed. Death from pyæmia followed. At the autopsy, the cancellous tissue of the tibia was found infiltrated with pus, and there were purulent deposits in several viscera.

Case 2.—The Metropolitan Free: Mr. Hutchinson.—A woman, aged 30, in fair health, was admitted on account of a very large tumour, apparently growing from the head of the right humerus. The history was, that the disease had followed a fracture four years ago. There was a large mass of diseased glands below the axilla. The tumour of the humerus overlapped the acromion, and end of clavicle above, and below bulged into the axilla. In many parts it was hard, as if surrounded by bone. Amputation at the shoulder-joint was advised, but the patient obstinately refused to submit. Under these circumstances, Mr. Hutchinson excised the articular head, and about a fourth of the shaft of the humerus. The extremities of the acromion, of the clavicle, and of the coracoid process were removed, in order to give room above; but they were not diseased. The whole mass was considerably larger than an infant's head, and consisted of a myeloid and fibro-plastic tumour, developed both within and externally to the bone. The mass of enlarged glands was dissected out at the same time by a distinct incision. The arm was subsequently kept well up, and the healing progressed most satisfactorily. All was healed at the end of six weeks, excepting one small sinus. The arm, although nearly a third shorter than the other, promised to be a very useful one, and the patient could already use her hand a little. Very soon after the operation one of the cervical glands behind the sterno-cleido mastoid began to enlarge, and about two months afterwards the disease re-appeared simultaneously at the extremity of the humerus, and in the cellular tissue of the subaxillary region. At present these three distinct growths are rapidly increasing, and all further interference with the disease is hopeless. The woman is in fair health, and able to walk about.

Case 3.—St. Thomas's: Mr. Solly.—A woman, on whom several previous operations had been performed for diseased ankle. Some carious bone was gouged out. Doing well.

Case 4.—St. Bartholomew's: Mr. Stanley.—A girl, aged 14, under care on account of diseased tarsus. A free incision was made over the inner aspect, and the opposed surfaces of the calcis and astragalus found to be carious. No bone was removed. Under treatment.

Cases 5 and 6.—St. Bartholomew's: Mr. Stanley.—In each of these the olecranon was exposed and gouged on account of superficial caries. Both the patients are men, one aged 54, the other 20. Under treatment.

Case 7.—Guy's: Mr. Hilton.—A boy, aged 13, of strumous constitution, and worn down by disease of the elbow-joint. He had been kept to bed, and the limb confined in splints, but with no benefit. The alternative being between amputation and excision, the latter was preferred. The disease had followed a blow with a stick, five months before. The joint was laid open by the ⊢-shaped incision, and the extremities of the three bones cut away. The boy did well afterwards, and is now in improved health and able to walk out; there is still, however, much swelling of the soft parts.

Case 8.—St. Mary's: Mr. Walton.—A lad, aged 18, in poor health, who had suffered from disease of the elbow-joint for two years, consequent on a sprain. There had been extensive ulceration of the soft parts, and the suppuration had also been very profuse. An H-shaped incision was practised, and the extremities of the three bones sawn away. Everything has since done remarkably well. The lad is gaining flesh, and the parts are fast healing.

Case 9.—University College: Mr. Erichsen.—A child, aged 5, under care on account of diseased elbow-joint. The extremity of the ulna was excised. Unhealthy inflammation followed, and amputation had to be performed, since which the case has done well.

AMPUTATIONS.

Of the Thigh. Case 1.—St. Bartholomew's: Mr. Paget.—A feeble man, aged 20. Diseased knee-joint of three years' duration. Amputation in lower third of thigh. Recovery. *Case* 2.—The London: Mr. Critchett.—A boy, aged 8, under care on account of scrofulous disease of the knee-joint of two years' duration. Doing well. *Case* 3.—University College: Mr. Erichsen.—A man, aged 28. Disease of the knee of one year' duration. Amputation. Recovery. *Case* 4.—University College: Mr. Erichsen.—A man, aged 47. Diseased knee-joint of three years' duration. Amputation. Recovery. *Case* 5.—St. Mary's: Mr. Ure.—A lad, aged 19, admitted on account of a severe contusion of the leg. Sloughing followed, and the shaft of the tibia became extensively exposed. His health failing, amputation through the thigh was performed six weeks after the accident, and ten days after an acute aggravation of the inflammation about the leg, in which the knee-joint was also involved. The stump sloughed to a small extent, but a good recovery followed. *Case* 6.—St. Mary's: Mr. Coulson.—A woman, aged 27, on whom four operations with the gouge had been performed, on account of carious disease in the head of the tibia. The knee-joint had at length become involved; so severe was the constitutional disturbance that amputation through the thigh had to be performed. She remained very feeble some time after the operation, but is now well. The extremity of the bone will probably exfoliate. *Case* 7.—Guy's: Mr. Birkett.—A cachectic man, aged 48, was admitted on account of suppurative and extensive sloughing of the soft parts of the right leg. The knee-joint was anchylosed. While under care the gastroinemic sloughed. Amputation through the thigh was performed. The stump sloughed, but the man is now well. *Case* 8.—Guy's: Mr. Birkett.—An unhealthy woman, aged 32, the subject of necrosis of the right femur, and disease of the knee-joint of two years' duration. Amputation. Recovery. *Case* 9.—Guy's: Mr. Cock.—A man, aged 32, admitted on account of his leg having been crushed by a railway accident. Primary amputation. Not a bad symptom occurred for two weeks, when suddenly the man had a severe rigor. Symptoms of pyæmia thenceforth developed themselves, and death ensued eight days later. Acute pleuro-neumonia was discovered at the autopsy. *Case* 10.—St. Bartholomew's: Mr. Lawrence.—A boy, aged 14, the subject of a tumour in the left calf, of two years' growth; some glands in the popliteal space were diseased. He had not suffered much pain and was in fair health. Amputation was performed, and the tumour found to be a large growth of medullary cancer. Death from pyæmia on the eighteenth day. No autopsy was permitted. *Case* 11.—University College: Mr. Marshall.—A man, aged 21. Primary amputation on account of compound fracture. Death on the seventh day.

Of the Leg. Case 12.—St. Mary's: Mr. Ure.—A woman, aged 68, under care on account of disease of the ankle joint following an injury. Amputation. Under treatment. *Case* 13.—St. Mary's: Mr. Ure.—A man, aged 63, of broken down constitution, under care on account of diseased ancle joint, the result of injury. Amputation. Under treatment. *Case* 14.—St. Bartholomew's: Mr. Stanley.—A man, aged 20, in good health, under care on account of diseased tarsal bones after a Chopart's amputation. Amputation in lower third of leg. Recovery. *Case* 15.—St. Bartholomew's: Mr. Stanley.—A man, aged 41, under care on account of diseased ankle-joint. Amputation. Recovery.

Of the Upper Extremity. Case 16.—Guy's: Mr. Birkett.—A delicate looking woman, aged 27, the subject of osteoid tumour involving the bones of the forearm, and of 5 years' growth. The circumference of the affected forearm was 16 inches, that of the healthy being 6. Amputation through the mid-humerus. Recovery. *Case* 17.—The Metropolitan Free: Mr. Hutchinson.—A woman, aged 54, of very feeble constitution, whose elbow-joint had been excised four months before. The parts about the joint remained much swollen, and there was still

much discharge. Her health failing, amputation through the upper arm was necessitated. Recovery. *Case* 18.—University College: Mr. Erichsen.—A child, aged 5, for whom resection of the elbow-joint had been performed. Unhealthy inflammation having supervened, amputation through the upper arm was necessitated. Recovery. *Case* 19.—University College: Mr. Quain.—A woman, aged 35, under care on account of diseased carpus. Amputation through the forearm. Secondary hœmorrhage on the 7th day. Recovery. *Case* 20.—University College: Mr. Quain.—A woman, aged 70, under care on account of disease of the carpus. Amputation through the forearm. Recovery. *Case* 21.—St. Thomas's: Mr. Le Gros Clarke.—A healthy man, of middle age, had received a severe compound fracture of the right arm, in addition to which he had fractures of several ribs, dislocation of the clavicle, and severe bruising of the left leg. Amputation a little below the shoulder. For a fortnight after the operation he remained in a state of low delirium, and there was no attempt at healing in the stump. A severe attack of secondary hœmorrhage then occurred. Under the free use of stimulants, the patient, in spite of sloughing of the integument, at length recovered. *Case* 22.—St. Thomas's: Mr. South.—A young man admitted on account of having had his arm smashed by the ramrod of a gun which he was loading. Primary amputation at the shoulder-joint. Recovery. *Case* 23.—St. Thomas's: Mr. McMurdo.—A boy, aged 13, admitted on account of severe laceration of the forearm and elbow. An attempt was made to save the arm, but the wound doing badly, secondary amputation had to be resorted to ten days after the accident. He gradually sank, and died eleven days after the amputation. *Case* 24.—Guy's: Mr. Hilton.—A man, aged 27, in good health. Primary amputation through the forearm on account of a crush sustained in a railway accident. Four days after the operation delirium tremens set in, from which he died on the day following. *Case* 25.—St. Bartholomew's: Mr. Stanley.—A man, aged 49, of intemperate habits, admitted on account of phlegmonous erysipelas of the forearm. Sloughing ensued, and the wrist-joint was opened. Several severe attacks of secondary hæmorrhage followed, and for the arrest of these, amputation through the upper arm was performed. Death. *Case* 26.—University College: Mr. Erichsen.—A man, aged 43. Amputation of arm, on account of diseased elbow. Death from exhaustion on the 7th day.

REMOVAL OF MALIGNANT TUMOURS.

Case 1.—Guy's: Mr. Birkett.—A woman, aged 31. An epithelial cancer of the left labium pudendi of three months' growth was excised. Recovery. *Case* 2.—The Metropolitan Free: Mr. Hutchinson.—A woman, aged 50, admitted on account of most extensive epithelial cancer of one year's duration, involving both labia pudendi, the clitoris, and surrounding the upper part of the urethral meatus. Its surface presented a large, deep, sloughy ulcer. In the left groin was a mass of enlarged glands the size of a fist, attached to the skin, but not ulcerated, and lower down in the thigh was a single gland the size of a walnut, and deeply placed to the inner side of the vein. The whole of both labia and their adjacent parts were dissected away, about half-an-inch of the upper surface of the uretha being exposed. In one part of the wound, the symphisis pubis was all but exposed. The whole of the diseased glands were also removed. The patient had a long convalescence, being much reduced by the profuse suppuration from the large wounds; but she ultimately recovered well. *Case* 3.—St. Thomas's: Mr. Simons.—An elderly man. Excision of a small epithelial cancer from the lower lip. Recovered. *Case* 4.—Guy's: Mr. Cock.—A woman, aged 36, under care on account of cancer of the tongue. The tongue had been sore for a year, and a rough tooth was believed to be the irritant cause. The disease involved the tip and left side of the organ, and was easily excised; not much difficulty was encountered with hæmorrhage. The part healed well. There were no enlarged glands. *Case* 5.—Guy's: Mr. Cock.—A man, aged 40, a gas worker, much exposed to soot and dirt, was admitted on account of cancer of the scrotum (Chimney-sweep's). Nine years before, a similar growth had been excised by the late Mr. Key. The present one was very large and of six months' duration. The whole was freely excised, and the wound healed well. *Case* 6.—St. Bartholomew's: Mr. Lawrence.—A man, aged 62. Epithelial cancer of the lip of a year's growth and of small size. Excision. Recovery. *Case* 7.—Guy's: Mr. Cock.—A man, aged 40, under care on account of epithelial cancer of the lip of 4 years' duration. Excision. Recovery. *Case* 8.—St. George's: Mr. Prescott Hewett.—A man, aged 40, under care on account of melanotic tumours in various parts of the body. There were two large ones in the groin, and at the patient's urgent wish, one of these which was growing rapidly was excised. The wound healed, but the other tumours continued to increase.

EXCISION OF THE BREAST, AND OF TUMOURS CONNECTED WITH IT.

Case 1.—The London: Mr. Ward.—A woman, aged 26. Tumour of large size and very rapid growth, having existed only three months. The gland adhering to it was removed with it. The growth, which was of the mammary glandular class, weighed two pounds and a quarter. It had been developed behind the breast. The wound healed well. *Case* 2.—The London: Mr. Curling.—A woman, aged 63, under care on account of a large cystic tumour in the breast. A similar one had been removed three years before. Excision. Recovery. *Case* 3.—St. Bartholomew's: Mr. Lawrence.—A girl, aged 19. A small mammary glandular tumour was excised. Recovered. *Case* 4.—St. Bartholomew's: Mr. Lawrence.—A woman, aged 50. The whole breast was removed on account of scirrhus of uncertain duration. Recovery. *Case* 5.—St. Mary's: Mr. James Lane.—A woman, aged 46. The whole breast was excised on account of scirrhus which had existed twelve months. Recovery. *Case* 6.—St. Bartholomew's: Mr. Stanley.—A woman, aged 62, under care on account of a scirrhous tumour of small size and of eighteen months' duration. Excision. Recovery. An enlarged gland in the axilla existed, but was not removed. *Case* 7.—St. Bartholomew's: Mr. Stanley.—A woman, aged 50, who had been subjected to several previous operations. From her left breast scirrhous tumours had twice previously been excised, and from her right two of cystic character. On the present occasion a recurred scirrhous mass the size of a nut was excised from the left, and one of cystic character the size of half an orange from the right. Under treatment. *Case* 8.—St. Thomas's: Mr. Solly.—A woman, aged 44. The whole breast was excised on account of a large growth of very suspicious character. Recovered. *Case* 9.—St. Thomas's: Mr. MacMurdo.—A woman, aged 39. The whole breast was removed on account of scirrhus. Recovered. *Case* 10.—University College: Mr. Erichsen.—A woman, aged 46. The breast was excised on account of scirrhus of a year's growth. Recovered.

AMPUTATION OF THE PENIS.

Case 1.—University College: Mr. Erichsen.—A man, aged 64. The subject of ulcerated cancer of the glands. The whole organ was removed, the uretha being divided further forwards than the rest of the part, and its mucous membrane afterwards stitched to the skin to prevent retraction. Recovery.

TRACHEOTOMY.

Case 1.—St. Bartholomew's: Mr. Paget.—A woman, aged 31, admitted on account of syphilitic ulceration of the larynx and pharynx. Great difficulty of breathing existed, and it gradually increased to such an extent that tracheotomy had to be resorted to. Inability to swallow afterwards occurred, and the patient required to be fed with the stomach pump. Death from exhaustion seven days after the operation. *Case* 2.—The Metropolitan Free: Mr. Hutchinson.—A boy, aged 3, an out-patient, suffering from croup. Difficulty of breathing gradually increased, and for 24 hours before the operation suffocation had appeared constantly imminent. When seen for the first time by Mr. Hutchinson, on the eighth day of the disease, he was too ill to permit of any delay, or to allow even of his removal to the Hospital. The operation was accordingly performed at his own home. Just before its completion he became deadly pale, and both respiration and pulse quite ceased. The tube having been inserted, the operator sucked up a large quantity of thick mucus which clogged the trachea, and then continued artificial respiration. In a minute or two there were signs of returning life, and a quarter of an hour afterwards the boy was breathing tranquilly. Complete relief was afforded by the operation, and he passed a comfortable night. On the following day, about sixteen hours after the operation, great dyspnœa again suddenly occurred, and in the time that was lost in seeking for surgical assistance, the child died. The tube was found blocked by a plug of mucus as tightly as if it

had been corked. *Case* 3.—The Hospital for Sick Children.—A girl, aged 14 months, admitted May 22, with croup, which had commenced the day previous. The state of the child did not permit of any active remedies being employed. Tracheotomy was performed by Mr. Chippendale, the House-Surgeon, but the child died convulsed thirteen hours afterwards. On examination, false membrane was seen to extend down to the third division of the bronchi.

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Medical Times & Gazette.

SATURDAY, AUGUST 9.

MEETING OF THE BRITISH MEDICAL ASSOCIATION AT BIRMINGHAM.

The Provincial Medical and Surgical Association has now at last ceased to exist, having at the meeting held in Birmingham last week, finally changed its name to the *British Medical Association*, under which name it will in future be known.

Those who recollect the proceedings at York last summer, and the vehement opposition that was then manifested against the alteration of the name of the Association, which was then proposed, will no doubt be amused at the change that has come over "the spirit of the dream," and at the unanimity that has been exhibited in assenting to a proposal which, only a year before, was met by the bitterest animosity. But calm and impartial persons will probably applaud the spirit of conciliation that has induced some of the firmest supporters of the Association to renounce the prejudices which they formerly entertained in favour of the views of the progressive party, and thus to secure the peace and harmony of a great body of the members of our Profession. Our own opinion is, that those who desired to retain the old and exclusive *Provincial* name were not acting wisely for the Association to which they were, no doubt, sincerely attached. However insignificant a name may be in itself, and although "a rose by any other name would smell as sweet," yet, when a particular designation becomes the watchword of a party, it necessarily tends to create and to maintain exclusive and unkind feelings among a body of men who ought to be united in the bonds of brotherhood. Under this view, the old name of "Provincial Association" was calculated to estrange the Metropolitan members and our brethren of Scotland and Ireland, and of the Colonies; and, indeed, it was not denied at the York meeting that a jealousy of the Metropolitan section of the Association did undoubtedly exist.

It will be remembered, however, that at the meeting of the Association in Birmingham, held in November last, the proceedings of the York Meeting were rescinded, and a general amnesty was proclaimed; and at the recent Meeting held in the same town, the decisions of the November Meeting were ratified, and those of the August Meeting in York were finally reversed.

Sir Charles Hastings, who possesses, and very justly, the esteem of a large body of the Association, deserves very great credit for the conciliatory course which he has adopted, and it is gratifying to find that he has yielded with a good grace to those internal reforms which were unquestionably needed in the machinery of the Association.

The Report which was read at the last Birmingham Meeting referred to several matters of importance to the Profession generally, as well as to the Association itself. Among the subjects of what may be called domestic interest to the Association itself, allusion was, of course, made to the *Journal*, which still appears to swallow up a large amount of the income. We are told, for instance, that the receipts between the 1st of July and the 31st of December of last year, amounted to £722 14s. 6d.; the expenditure to £1415 6s. 2d., of which £1139 14s. 10d. were expenses of the *Journal*. It cannot be forgotten, that we have on former occasions represented the inexpediency of devoting such large sums to the support of a weekly journal, to the exclusion of the publication of the Transactions, and to the detriment of several of the scientific and political objects of the Association; and in these views we were joined by several of the oldest and best friends of the Association, as well as by several of our Medical contemporaries; but it is probable, that, owing to certain recent changes, we shall hear no more discussion upon the subject, except, perhaps, in our own columns.

Upon the question of Medical Reform, we think it will be found that the Association has taken a wise and prudent course. The Bill introduced by Mr. Headlam was stamped by the approval of the Association; but when it was found that the Select Committee of the House of Commons had agreed to a Bill which embraced many, though not all, of the principles for which the Profession had long been struggling, the Reform Committee agreed to give it their unqualified support. This abandonment of Mr. Headlam's Bill, and support of the Government measure on the part of the Reform Committee of the Association, appears to have caused considerable discussion at the last Birmingham meeting, and many of the members expressed their strong disapprobation of the clause which gave to the Government the power of nominating the Medical Council. It cannot be denied that there was considerable weight in the arguments of some of the speakers as to the danger to be apprehended from Government nomination in the affairs of the Profession; and we were particularly struck with the remarks of Dr. Budd, who represented the probability (and not a remote one) of such persons as Lord Robert Grosvenor being placed at the head of a Government Medical Board; or of having as colleagues Sir Benjamin Hall, or a few more whom we might name, whose opinions on Medical matters are anything but orthodox. Still it must be evident that all other plans of appointing the Medical Council must be liable to even stronger objections; the election by universal suffrage would tend to create continual discord and confusion, while the appointment to the Medical Council of officials of Colleges, Universities, and Halls would probably only tend to perpetuate the abuses which now exist. A Council nominated by the Crown, would, at all events, be responsible to Parliament, and an abuse of its

powers would soon call down the censures of the representatives of the nation.

The opposition to Government nomination, however, was so strong on the part of several members, that it required all Sir Charles Hastings' eloquence and influence to obtain a majority in favour of the amended Bill, as proposed by the Select Committee of the House of Commons; but eventually a majority was obtained in favour of supporting the Bill.

On the whole, the proceedings of the meeting of the Association at Birmingham appear to have given general satisfaction; and the conciliatory feelings evinced by the several speakers have done much to heal the breaches which lately threatened to disorganize a very large body of our Professional brethren.

THE WEEK.

A GRAND banquet is to be given in Paris, on the 20th inst., by the Medical Profession of France to the Medical Officers of the Army and Navy who have served in the late war in the East and the Baltic. Invitations have been sent through the Earl of Clarendon to Medical officers of our Army and Navy to represent their respective departments at the banquet. Sir John Hall, K.C.B., has been nominated by Dr. Smith to represent his brethren in the Army, and it is expected that Dr. Deas, the Senior Medical Officer of the Black Sea Fleet will appear for the department to which he belongs. The French manage these matters better than we do. Our brethren in the Army and Navy have done their duty nobly throughout the late struggle, but we hear nothing as yet of any public Professional recognition of their services. It is with no little satisfaction that we are able to remind our readers how, during the most gloomy period of the campaign, when the Medical Press generally joined the public papers in unjust attacks upon Dr. Smith and the Medical Department, we maintained, week after week, what Parliamentary inquiry afterwards proved to be the case, that it was the Government at home and Generals abroad who were to blame, and not our overworked, ill-requited Army Surgeons or their chief. The whole Profession now knows this to be the case. Could not some such banquet as that about to be given in France by the Civil to the Military Members of our Profession be arranged, as a graceful and well-deserved compliment to officers of our own Medical Departments?

At the distribution of prizes a few days since at University College, an unusual interest was given to the proceedings by the presence of Sir W. F. Williams, the heroic defender of Kars, who presided upon the occasion. The gallant General, in a very effective and appropriate speech, alluded to the services of the Medical Officers in time of war, and highly eulogized the conduct of Dr. Sandwith, who, it will be recollected, accompanied him in his expedition to the East. The combatant officers of the Army are not always ready to do justice to the services of the Medical Department, and it is therefore doubly gratifying to find in Sir W. F. Williams so noble and generous an advocate of our Profession. It cannot be too often repeated that filth, disease, and mismanagement, destroy many more lives in war time, than the sword and fire of the enemy; and the Medical Officer who improves the Sanitary condition of an Army deserves reward as much as he who leads the troops into battle. In the late campaign in Armenia, the condition of the Turkish soldiers appears to have been wretched in the extreme; but by the care and attention of Dr. Sandwith, they were placed in a position of comparative health, cleanliness, and comfort, and were enabled to endure with fortitude the horrors of the siege of Kars, and to brave, not only the attacks of the Russian troops, but even the pangs of famine itself.

While in England the public mind has been excited and horrified by the attempts said to have been made to obtain money from Insurance Offices by the murder of the assured, it seems that a Medical man in Sydney has been tried for the same offence, and condemned to ten years' labour on the roads of the colony. In this case the object was, fortunately, not accomplished; and the lady whose life was attempted was present at the trial, and was the chief witness for the prosecution. The drug employed was belladonna, and the prisoner, Dr. Beer, who administered it, had a direct interest in her death, which he assured her would soon take place, although he wished her to believe that it would be the result of natural illness. In thus declaring the approach of death to a person who was in fair health, the wish was of course "the father to the thought;" and the conduct of the prisoner was very similar to that of Dove, who, it will be remembered, represented his wife to be in a dying state, although she was not labouring under any illness, except that induced by poison. Whatever pseudo-philanthropists may say to the contrary, we believe that a few instances of the infliction of signal punishment on the offenders will tend most materially to check the progress of secret poisoning.

Up to the present time it is believed that no mitigation of the sentence on William Dove, for the murder of his wife, has been granted by the authorities, and his execution was fixed for the 9th of August. It has been stated, that representations have been made to the Secretary of State, confirming strongly the opinion of those who believe in the insanity of the prisoner; but, if such evidence exists, it is to be regretted that it was not produced upon the trial. In the absence of any information beyond that conveyed in the published evidence, we cannot conceive that William Dove is insane; and since his conviction, his conduct has not exhibited, so far as we are aware, any trace of deranged intellect. His letter to the Devil, written in blood, after his committal to prison, was probably a *ruse*.

We regret to learn that a case of spasmodic cholera occurred in the Metropolis on Wednesday last. The patient was attacked in the district of St. George's, Hanover-square, but he did not reside in that locality. We had hoped that this scourge would this year have been spared us, but the excessive heat of the weather no doubt tends to favour the outbreak of this formidable epidemic. It is time for the Medical Officers of Health of the different districts to be upon the alert to examine into the occurrence of any cases of zymotic disease, and to devise means for preventing its propagation.

REVIEW.

An Exposition of the Signs and Symptoms of Pregnancy; with some other Papers on Subjects connected with Midwifery. By W. F. MONTGOMERY, A.M., M.D., M.R.I.A., Professor of Midwifery in the King and Queen's College of Physicians in Ireland, etc., etc. 2nd Edition. London. 1856. 8vo. Pp. 706.

IT is not saying too much for the first edition of this work, that it was the best treatise that had ever appeared upon the subject to which it related. It was received with marked approval by the Profession here and elsewhere; was translated, in part or in whole, into foreign languages; and at once gained for its gifted author an honourable position among the most distinguished obstetric writers.

All this and more may be predicated of the edition just issued from the press. The actual amount of matter in it is nearly double that contained in the former edition; while in the various additions that have been made, the author has exercised a sound discretion, merely inserting such as his own observation had furnished; or, if derived from other sources

had appeared to his judgment consonant to truth, and likely to be useful in practice. This is the proper principle which should guide Medical writers in quoting the views or opinions of others; and it is greatly to be desired that it were more generally acted on.

Our limited space quite forbids us entering into anything like an analytical examination of the contents of this volume; nor, indeed, is there any necessity for our doing so. We shall, therefore, merely glance at such portions as relate to subjects but partially known or investigated when the first edition was written.

We are happy to see that, to the value of auscultation as a means of ascertaining the existence of pregnancy, he now bears the strongest testimony. His remarks under this head are the fullest and most minute of any English writer, though not possessing a claim to originality. The Dublin School of Midwifery may justly boast of having been the first to introduce the practice of obstetric auscultation into these countries. This took place nearly a quarter of a century ago, and the Dublin Accoucheurs have not failed to follow up the advantage then gained. The zeal and success with which auscultation of the gravid uterus has been there studied, is sufficiently attested by the various memoirs and essays of Ferguson, Adams, Nagle, Kennedy, Collins, M'Clintock, and Churchill, all bearing upon, and tending to advance our knowledge of, this important subject, as well as to enlarge the sphere of its practical utility. It is needless to say that, of the different sounds proceeding from the gravid uterus, the heart-beat is the one to which Professor Montgomery attaches the greatest value. The placental murmur, he thinks, may be, and frequently is, closely simulated in different states and diseases wholly unconnected with pregnancy, and that its value, as a test of pregnaney, is thereby greatly lessened. We have long been impressed with the same conviction, and we believe it is one daily gaining ground among practical obstetricians. The proposal of M. Nauche, to apply an instrument (which he calls a *metroscope*) directly to the uterus per vaginam, in order to hear the fœtal movements, meets with but little favour at the hands of our author. He very readily acknowledges his "total want of experience in the use of the *metroscope*, but eannot avoid expressing his entire disbelief in its asserted advantages; and, even if these were confirmed, few cases are likely to occur of such extreme urgeney as to induce him to overcome his reluctance to adopt, or even propose, such a mode of examination, which very few indeed would be found to permit, and which experience has now sufficiently shown to be attended with no small amount of difficulty, and, of course, in a proportional degree likely to be injurious, while it has absolutely no practical value."

We all remember what a stir was occasioned some years ago by the announcement, that the urine of pregnant females eontained a new element, *kyestein* or *gravidine*, which was supposed to furnish conclusive evidence of the existence of pregnancy. Since then a good deal has been written upon this substanee, and a large number of experiments have been made with the view of testing its valne as an exponent. Of these researches our author gives a very lucid and eoncise abstract, and sums up by observing, "I think we should be very slow to place any confidence in such a sign as the one in question, beyond regarding it, when well marked, as having some value as 'a *corroborative* indication;' and even if it were proved, that there was eonstant relation between the formation of kyestein and the existence of pregnancy, a mode of diagnosis which requires the use of the microscope, and from three to six or eight days, to make the necessary observations, could never be used generally or satisfactorily in the daily exigencies of practice."—P. 307. The dusky red or blue eolour of the vagina,—commonly called Kluge's, or Jacquemin's, test of pregnancy, receives very full and impartial consideration from Dr. Montgomery, and his further experience leads him to regard it as a "very valuable diagnostic indication" of the gravid state.

The exact situation of the *corpus lutcum* in respect to the membranes of the Graafian vesicle has been, for so small a matter, the source of a very lengthened eontroversy. The view formerly entertained by Dr. Montgomery he still adheres to, and brings to its support much additional evidence of a kind that would be to our minds conclusive, if we had not seen and examined one or two preparations in Dr. Lee's eollection that appear to militate against it.

The essay "On the Period of Human Gestation," is one of special importance and value, not only from the eomprehensive and masterly manner in which this intricate subjeet is discussed in all its bearings, but from the number of original observations and facts with which the essay is enriched. It has been much the fashion of late to suppose that parturition comes on at the tenth menstrual period after conception; and if we mistake not, this assumed law is made the basis of Dr. Tyler Smith's "periodoscope." Now Professor Montgomery's facts and reasoning all tend indisputably to prove *that no such* law exists; and that the statements of the immortal Harvey and Dr. T. Smith on this matter are untenable even on their own showing.

We should almost apologize to the author and to our readers, for the very few meagre extracts we have made from a work so replete with information of the most interesting and important kind. But we were anxious just to state the opinion of so high an authority on these disputed points, our narrow typographical limits not letting us do more. It only remains for us to express in general terms our estimate of this treatise. We can conscientiously say we have never read a work in which the results of experience, research, and reflection, have been more judiciously and advantageously blended. Every subject in it is treated fully—completely, we might almost say—but yet with such felicity of arrangement and of language, that its minuteness is never felt to be tedious or wearisome. The style in which it is written is no less deserving of our admiration. Every page reminds us that the author is not only a scholar, in the highest sense of the word, but possessed of an eminently classical mind.

This may look like the language of partiality or of flattery; but we deny both. It is no more than the expression of our deliberate opinion. That it is a faultless production we are far from affirming; but the faults which appear to us are of an unimportant kind, and scarcely, if at all, detract from the value of the book as a whole; therefore we do not think it worth while to mention them. In a forensic point of view the value of the work cannot be overrated. Under this aspect, indeed, its great merits are conspicuously seen. The various obstetrico-legal questions which come under notice are most fully considered, and the author brings all his erudition and practical wisdom to aid in their solution. The plates illustrating the condition of the breast during pregnancy, though fewer in number than in the former edition, present, however, a higher style of finish, and for accuracy of representation and artistic skill cannot be surpassed.

In fine, we render our grateful thanks to the author for this second edition of his "Exposition." By drawing so largely on his stores of practical knowledge and erudition, and bestowing so much eare upon the preparation of this book, he has laid the Profession under a deep obligation, and has produced a work that immortalizes his fame, and reflects honour upon a School of Midwifery even so distinguished as that of Dublin confessedly is.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON PROLAPSUS OF THE RECTUM IN CHILDREN.

By M. GUERSANT.

This is oftenest met with between the ages of two and four, but may occur at an earlier period, as also as late as six or seven. Its production is favoured by all cases of tenesmus, so that it may be a result of prolonged diarrhœa leading to relaxed mucous membrane, or of the efforts consequent on constipation. Beyond these merely local causes there is, however, a general one, which exerts great influence on its production, and furnishes a principal indication of treatment. This is the condition of debility:—These children are almost always pale, lymphatic, and defective in muscular power, while their mucous membranes are almost colourless; a tonic regimen here is the primary consideration.

Whatever the cause, the prolapsus of the rectal mucous membrane always presents the same appearance. It forms a tumour of from a-half to four or five centimetres in length, the surface of which is violaceous, sometimes slightly sanguinolent, covered with mucosities, and in some cases eroded. At its lowest point there is an infundibuliform depression. On

passing the finger around its base, we find this constricted when the prolapsus has only seldom occurred, and then the reduction is somewhat difficult; while, when the descent is of old standing and habitual, the base is not constricted, and the reduction is perfectly easy—so that when aware of the degree of constriction and of that of the facility of returning the gut, we are able to judge of the age and frequency of the prolapse, without any information. The frequency of the occurrence of the prolapse ends in the giving rise to a circumstance which, in its turn, singularly favours its production and persistence. This is a true paralysis of the external sphincter, leaving the anus gaping, and allowing constantly a free passage to the mucous membrane. Although such paralysis is a consequence of prolapsus of the rectum, it may be also primary, especially in debilitated subjects. In any case, it is always present when the prolapse has frequently occurred, the anus being then infundibuliform, and allowing the introduction of several fingers without inducing any sense of constriction.

In treating this affection we must endeavour to remove its cause whether local or general, and at the same time act upon the mucous membrane with topical astringents. In a certain number of cases no other means are required, but in a great many cases other means are called for, and of these the actual cautery is the best. A small conical iron, similar to that used in cauterizing the alveoli, is to be employed; and with this, after emptying the rectum and returning the gut, we cauterize at four points, in the direction of the anterior, posterior, and transverse diameters, at the junction of the mucous membrane with the skin, penetrating to the sphincter. The child should be fasting and chloroformed. From the very day of the operation, the mucous membrane sometimes ceases to descend; but frequently six or seven days, or even more, must elapse before the effect is attained. It is only a question of a few days more or less, the result being pretty well certain. The cauterization does not produce its effects by means of contraction arising from cicatrization; for its action is too rapid; and a cure does not result from Dupuytren's operation of cutting out strips of mucous membrane around the orifice. It acts by restoring to the sphincter its contractile power; and if the finger be now attempted to be passed, in place of penetrating with ease as before, it meets with considerable resistance. Following up this idea, M. Duchaussoy has tried the effect of blistering the margin of the anus, and of employing electricity. The first of these means proved of no avail, and the other only succeeded after many repetitions.

Gaz. des Hôp. No. XIII.

GENERAL CORRESPONDENCE.

THE DOUBLE QUALIFICATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—Another Session having passed away without anything being done to settle the question of Medical Reform, I would beg to suggest (through the medium of your columns) to the Society of Apothecaries, the desirability of something being done to settle the question at issue between themselves and those Members of the College of Surgeons who are now practising without the L.A.C.

What I would beg to advise is this: Let all those Surgeons who are now practising, and have done so for at least three months, present themselves for examination before the Society of Apothecaries, and let them be examined in Chemistry, Materia Medica, and Practice of Physic. As Members of the College have been examined in Anatomy and Physiology, there would not, I think, be any necessity for another examination in those subjects. Midwifery might also be dispensed with now, as most Surgeons take the Midwifery Diploma at the College.

I find from last year's "Medical Directory," that there are not less than 2500 Medical men practising with only one qualification, in England and Wales; and I feel sure there are many who would gladly avail themselves of such a privilege as that I have named, if they had the chance of doing so. I trust, Sir, therefore you will be kind enough to use your influence with the Apothecaries' Company to get this boon for us, and you will receive the thanks of many who are now exposed to insults of all kinds from those who have the double qualification; many of whom, I am sorry to say, seem to delight in annoying those they ought to consider as equal with themselves.

If what I have suggested should ever be carried out, it will prevent a deal of ill feeling in the Profession, and, at the same time, confer a great favour on those who, from having a practice to attend to, have not much time for reading up for an examination, consisting of so many subjects as it usually does at the Hall. I am, &c.

August 4, 1856. A M.R.C.S. and L.M.

"IS CHOLERA A CONTAGIOUS DISEASE?"

[To the Editor of the Medical Times and Gazette.]

Sir,—Permit me, in reply to Dr. Barclay's letter, which appeared in the *Medical Times and Gazette* of the 2nd of August, to say, that the object which was in view when the inquiry was undertaken last year, was to ascertain whether cholera can be conveyed by human intercourse, from an infected to a healthy locality—or from an infected to a healthy person—and that it was of the utmost importance that no case should be referred to which might be doubtful.

The Case No. 107 in "The Result of an Inquiry," etc., to which Dr. Barclay refers, occurred in a man who, I was told, had necrosis of the bones of the foot; who had been nine months in St. George's Hospital in consequence; who had been discharged from Hospital three weeks before death, hectic, bedridden, and so reduced in health and strength as to be deemed unable to support the amputation of his limb. Under such circumstances, there might be a doubt as to the nature of the diarrhœa which terminated his existence.

I was not aware, till I saw it in his letter of the 2nd of August, that Dr. Barclay had seen this case, and that he had pronounced it a case of cholera; and even if I had known that he considered the case one of cholera, it would not have altered my opinion; for, without forgetting what is due to a *confrère*, he will permit me to remind him that he was Registrar at St. George's Hospital in 1854; that he signed the Report forwarded to the General Board of Health, relative to the cases of cholera which had occurred at that Hospital in 1854; and that cases of cholera are stated in that Report to have occurred in that Hospital, without any premonitory diarrhœa; yet when these cases are inquired into, in his presence, they were found to have been, either cases of cholera which had had a decided premonitory diarrhœa, as the cases 2218, 2042, etc.; or which were cases of cholera, where the previous history of the case had not been ascertained, as in the cases 2031, 2841, 2844, etc.,; or were cases of error of diagnosis, as the case of typhus, No. 2000, and the case of strangulated hernia, No. 2844, reported as cases of cholera without a premonitory diarrhœa. Therefore, even if I had been aware that Dr. Barclay had pronounced the case No. 107 to have been cholera, I should have been justified in doubting it.

Since Dr. Barclay says it, I believe him, that he is puzzled to understand what is meant by "a premonitory diarrhœa of a few hours;" but his not understanding it does not alter the pathological fact, that it is as impossible for an individual to have an attack of cholera without a premonitory diarrhœa, as it is impossible for an individual to have a hæmorrhage without having a vein or an artery opened: and that the important practical result arrived at by the knowledge of the invariable existence of this premonitory diarrhœa is, that if the disease is scientifically attended to in this diarrhœal stage, it is easily cured.

I submit that rice-water evacuations are no more pathognomonic of the existence of cholera than their absence is a proof of the non-existence of cholera. For a strong dose of elaterium, or of, indeed, any drastic purgative, will induce rice-water evacuations; and every pathologist who has seen and studied cholera, is aware that cases of cholera do occur where the evacuations are fæcal to the last; and without referring to one's own researches, we find in Dr. Lyons' report to Lord Panmure, just published, that in 12 cases of death from cholera, he found in three—in the colon—"partially digested food," "fæcal matter," "a dark fluid," and "highly bilious matter," so that these three cases could not have had the rice-water evacuations.

In conclusion, no one is more aware than I am, that the inquiry which I have attempted leaves much to be desired; yet I have the satisfaction to believe that, so far as it goes, the

cases have been fully investigated, and that, whatever opinion has been arrived at, that opinion is the result of the cases before me. I am, &c.

D. Macloughlin, M.D.

34, Bruton-street, Berkeley-square.
August, 5, 1856.

[Dr. Macloughlin has quoted somewhat incorrectly the Report of Dr. Lyons, page 17.—Ed. *M. T. & G.*]

ELIMINATION OF CHLOROFORM WITH THE URINE AS A POSSIBLE SOURCE OF FALLACY IN TESTING THAT SECRETION FOR SUGAR.

[To the Editor of the Medical Times and Gazette.]

Sir,—Dr. Lees, of this city, having mentioned that, during a recent visit to Edinburgh, he had heard it stated that the urine of patients submitted to the action of chloroform is, while they continue under the influence of that agent, saccharine, it occurred to me that it was possible chloroform might possess the power of reducing the salts of copper in the same manner as sugar does; and that, as it is likely to be eliminated with the urine of those fully under its influence, its existence in that fluid might, if a copper test alone were relied on as proof of the presence of sugar, lead to an erroneous inference. That it actually does possess the power alluded to, is easily proved; on boiling urine ascertained to be free from sugar, and to which a few drops of Kletzinky's fluid and of chloroform had been added, changes similar to those produced when sugar is present, were immediately developed. This reaction, though one that might be anticipated from the known composition of chloroform, has not, so far as I am aware, been recorded, and as it is one of practical importance, I am anxious to give it the publicity it will obtain if inserted in your pages. As the liquor potassæ test, originally proposed by Mr. Moore of the Queen's Hospital, Birmingham, is not affected by chloroform, it will furnish the means of ascertaining whether the reaction I have described depends upon the presence of the latter or of sugar. The fluid recommended by Dr. Kletzinsky of Vienna, as the most convenient form in which the copper test can be applied, is prepared by triturating together four parts of a saturated solution of sulphate of copper, six of glycerine, and eight of fused potash. Sulphate of potash crystallizes, and is separated by filtration. The filtered fluid is of a syrupy consistence, and of a beautiful deep blue colour. On boiling a few drops of it with a menstruum containing sugar, or to which a little chloroform has been added, the copper is quickly reduced.

Dr. Lees and I are about instituting experiments, according as opportunities may present themselves, to test the accuracy of the statement alluded to at the commencement of this letter, and I hope, in a future communication, to bring the results before your readers. Meanwhile, I think it well to direct the attention of others to the point.

7, South Anne-street, Dublin. I am, &c.
August 5, 1856. William D. Moore.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

[To the Editor of the Medical Times and Gazette.]

Sir,—Although the questions hereto appended were specially directed to the notice of the various Medical Officers of Health, yet, as the subject is of great importance, any facts bearing thereon cannot but be valuable, and I shall be glad to receive communications on the subject from any member of the Profession. I am, &c.

W. T. Iliff, Jun., M.B.,
Secretary to the Trade-Nuisance Committee.

Metropolitan Association of Medical Officers of Health.
Trade-Nuisances Committee.

Dear Sir,—The Committee entrusted with the investigation of the Nuisances arising from Trades and Manufactures will be obliged if you will furnish them *before the 1st of October* with replies to the following inquiries:—

1. What offensive Trades or Manufactures are carried on in your district?

2. In respect of each, please furnish the following particulars:—

a. In what respect is it a "Nuisance"?
b. Have you any ground for believing that it is directly or indirectly injurious to the health of persons in the neighbourhood?
c. Are any and what means adopted by manufacturers to remedy the nuisance? Are they efficient?
d. Have legal proceedings been taken? under what Act? and with what result?

Replies to be addressed to the Secretary of the Committee, Dr. Iliff, 6, Newington-place, Kennington.

I am, dear Sir,
July 28, 1856. Edward Ballard, Chairman.

BRITISH MEDICAL ASSOCIATION.—ANNUAL MEETING.

The members of the Provincial Medical Association assembled at Birmingham to hold their twenty-fourth annual meeting, on the 29th, 30th, and 31st days of July. Above two hundred were present, among whom were Dr. James Johnstone (the President,) Mr. Langston Parker, Dr. Bell Fletcher, Mr. Wickenden, Mr. Solomon, Mr. Chavasse, Mr. Pemberton, and a number of the Profession resident in Birmingham and its neighbourhood; Sir John Forbes, Mr. Propert, Mr. Hodgson, Dr. Risdon Bennett, Dr. Winslow, Dr. Richardson, Mr. Erichsen, Dr. Lankester, Dr. Henry, Dr. Stewart, Dr. Wynter, Dr. Howard, Dr. Sibson, Mr. Hare, etc., of London; Dr. Webster, of Dulwich; Sir Charles Hastings and Mr. Carden, of Worcester; Dr. Jeaffreson, of Leamington; Mr. Bucknill, of Rugby; Dr. Barker, of Bedford; Dr. Shapter, of Exeter; Dr. Radclyffe Hall, of Torquay; Dr. Simpson, Dr. C. Williams, and Mr. Husband, of York; Mr. Nunneley, of Leeds; Dr. W. Budd, of Bristol; Dr. Davies, Dr. Tunstall, Mr. Norman, and Mr. Soden, of Bath; Dr. Burnett, of Alton; Dr. Heygate, of Derby; Mr. Flint and Dr. Turner, of Stockport, etc.

The General Council and the Committee appointed for the revision of the laws of the Association, met on Tuesday, the 29th of July, previously to the commencement of the general meeting, and finally arranged the business to be brought forward by them.

The first general meeting of the members of the Association was held in King Edward's School, at 5 p.m., on July 29, when the chair was taken by Dr. James Johnstone, President for the year.

The President, on taking the chair, expressed the pleasure which the members resident in Birmingham felt in welcoming the Association to the town. It had already met there twenty-two years ago; and in the interval of time that had elapsed, the number of members had increased from 450 to 2125. At first, and for several years, the annual meetings of the Association had been the only opportunities which its members had of discussing subjects relating to Medical science, and the honour and welfare of the Profession; but the establishment of district branches had greatly increased those opportunities. He trusted that, before the meeting terminated, such amendments in the laws of the Association would be passed, as would ensure for it the confidence and support of the whole Profession in the United Kingdom; and when these reforms were accomplished, the Annual Meetings might be devoted to the consideration of subjects of Medical science and Medical polity. Dr. Johnstone then briefly reviewed the progress which has been made in Medical science during the past twenty-four years, and concluded by some remarks on the importance of sanitary reform, a matter in the promotion of which great good might be effected by the Association.

Dr. Williams, of Worcester, the General Secretary, read the Report of the Council. During the past year, there had been some important changes in the working of the Association. The votes of the members in general had been taken with regard to the name; and, from the returns, there had appeared to be a majority of 260 in favour of the title "British Medical Association." The number of members at the last annual meeting was about 2100; since that period 162 had died or resigned, and 193 new members had joined, making the total number at present 2125. The district branches had extended their influence; and a new branch had been formed

at Reading. A call of ten shillings, in addition to the subscription, had been made on each member at the end of 1855, which had been responded to by seven hundred, and it was hoped that the remaining members of the Association would not delay to respond to it. The financial affairs of the Association were in a promising state. The editorship of the Journal had passed into the hands of Dr. Wynter, who had been selected from among fourteen candidates, all of whom possessed qualifications of the highest order.

On the motion of Mr. Langston Parker, seconded by Dr. A. P. Stewart, the report was unanimously adopted.

A new code of laws, which had been drawn up by the Laws Revision Committee, appointed at a special meeting, held in Birmingham on November 20, 1855, was then read, after which each law was put from the chair for approval. Most of them were passed without comment; but two or three elicited some discussion. On the motion being made, that "the office of vice-president should be a honorary distinction, conferred on the retiring President by a vote of the members at an annual meeting," a discussion took place as to whether the Vice-Presidents were to be entitled, *ex officio*, to seats in the Council. It was ultimately decided by a large majority, that, as the Council was to be strictly representative, the title of Vice-President should be a permanent honorary distinction only, giving its possessor no voice in the Council; he might, however, be elected by the members resident in his district as their representative. On the laws, appointing Sir Charles Hastings President of the Council and Treasurer for life, being passed, he rose and said that he should resign those offices into the hands of the Association at the end of three years.

The following is an outline of the laws, as finally agreed on:—

The Association is to be termed the "British Medical Association." The objects of the Association are the promotion of medical science, and the maintenance of the honour and interests of the Medical Profession. The Association shall consist of Ordinary, Honorary, and Corresponding Members, being duly qualified members of the Medical Profession. The Association shall be governed by a Council. The officers of the Association shall be—1. A President. 2. Vice-Presidents. 3. President of the Council. 4. Treasurer. 5. Secretary. The President, Secretary, and Members of the Council shall be elected annually at the General Meeting; and, with the exception of the President, shall be capable of being re-elected. The office of President shall be conferred on some member resident in the district in which the Annual Meeting is held in the year in which his presidency commences. The office of Vice-President shall be conferred as an honorary distinction on the retiring President by a vote of the members at the Annual Meeting. The Council shall consist of the President and other Officers of the Association, together with those members who shall be elected annually. Each district Branch shall, at a meeting to be held before the General Annual Meeting, proceed to nominate members who shall represent the Branch in the Council for the ensuing year, according to the following scheme. In a Branch consisting of not less than twenty members, one member shall be elected as representative, in addition to the Honorary Secretary. If the members amount to more than twenty, and for every complete number of twenty additional members, each Branch shall be entitled to choose one additional representative. A complete list of the members thus chosen shall be sent to the Secretary at least a fortnight before the annual meeting, and they shall continue in office till the close of the official year, when they may be either re-appointed or superseded. The offices of President of the Council and Treasurer shall be in the first instance held by Sir Charles Hastings, permanently; and on any vacancy occurring, the President of the Council shall be elected at the annual meeting for three years; the Treasurer shall be elected at a general meeting of the Association, and shall hold his office during pleasure. There shall be one paid Secretary, resident in some convenient locality; and he shall be elected at an annual or special meeting of the Association. The offices of Secretary and Editor of the Journal shall not be held by the same person. The Council shall, at each annual meeting, appoint a Committee of Council, which shall consist of the Treasurer, the President of Council, the Secretary, and of ten members to be annually balloted by the Council from its own body, together with one Secretary from each branch. They shall manage the affairs of the Association in the intervals between the general meetings. The Committee of Council shall appoint the Editor of the Journal, who shall be responsible to them for its management; they shall direct any other publications of the Association, and shall take cognizance of any matter which may require immediate decision. Five members to be a quorum. Any qualified Medical Practitioner, not disqualified by any by-law, who shall be recommended as eligible by any two members, shall be admitted a member at any time by the Committee of Council, or by the Council of any Branch. The subscription to the Association shall be One Guinea annually; and each member, on paying his subscription, shall be entitled to receive the publications of the Association. The subscription shall date from the 1st of January in each year. If any member's subscription remain unpaid twelve months after it shall have become due, the publications of the Society shall be withheld from such member until his arrears be paid. The name of no member shall remain on the books of the Association whose arrears extend over three years. If a member be accused of professional impropriety or misconduct, a majority of three-fourths of those present at an Annual or Special General Meeting may determine that the member offending be expelled from the Association; but no measure of this kind shall be adopted unless the accused shall have had two months' notice of the charges to be brought against him. Honorary members may be elected by the general body, on the recommendation of the Council at an Annual General Meeting; they shall be members of the Medical Profession, of scientific eminence, or who may have rendered some distinguished service to the Association. Gentlemen having these qualifications, but residing in the colonies or in foreign countries, may be elected Corresponding Members. The Annual Meeting shall be held at a period to be fixed by the Committee of Council; the place of meeting being determined prospectively in each year by the vote of the Association. Any member wishing to propose a new law, or an alteration of an existing law, must send notice to the Secretary at least two months previous to the Annual Meeting, and specify the change proposed. The Secretary shall immediately cause such notice to be published in the Journal three times at least. A Medical Benevolent Society, under such regulations as may be approved by the Council, shall be connected with the Association. It shall be called the "Benevolent Fund of the British Medical Association." The Committee of Council shall annually prepare a statement of accounts, and a report upon the financial condition of the Association, which shall be published in the Journal within the first three months of the year. The accounts shall be audited every year by two auditors, appointed at the previous annual meeting, and not holding any other office in the general Association. The Journal, under the title of the "*British Medical Journal*, being the Journal of the British Medical Association," shall be published weekly in London, and shall be conducted by a paid Editor, who shall be responsible for all that appears in its pages, except such matter as may be printed by direction of the Committee of Council. The Journal shall be considered the medium of communication between the members of the Association; in it shall be inserted papers on medical science, intimations of places and times of meeting, of the Association or of the Branches, etc., and any other Association business that the Committee of Council may direct. "Transactions" shall be published occasionally, if the funds of the Association permit. For the purposes of self-government, and for wider diffusion of the benefits of the Association, the members shall be united into District Branches. In any district, not already included in a Branch, any *twenty* members may unite, and may appoint a President and Secretary, either merely for the purpose of electing members of the Council, or for the further development of the Branch in periodical meetings for scientific or social purposes. The District Branches shall be free to govern themselves as their respective members shall think fit; but no Branch law shall be valid which, in the opinion of the Committee of Council, shall contravene any fundamental law of the Association. The District Branches shall each pay their own expenses.

On Wednesday, July 30, the members assembled at 11 o'clock.

Mr. Husband, of York, moved, and Dr. Melson, of Birmingham, seconded, that a vote of thanks be given to Dr. Simpson, of York, the retiring President, and that his name be placed

on the list of Vice-Presidents of the Association. The motion was carried unanimously.

The Report of the Medical Reform Committee of the Association was then read by Mr. G. W. Hastings.

The Report commenced by briefly recapitulating the circumstances under which the Committee had been re-appointed at the York Meeting, and gave an outline of the proceedings taken in regard to Medical Reform during the past session of Parliament. The Committee had endeavoured strenuously to obtain petitions in favour of Mr. Headlam's Bill, and in this they had received valuable assistance from the Branch Secretaries and other members of the Profession, and especially from the Reform Committee of the Metropolitan Counties Branch. Although the Bill introduced by the Select Committee of the House of Commons differed from that of Mr. Headlam in some prominent points, especially in proposing a nominee council, and the creation of licentiates in Medicine and Surgery, and in omitting the rule for compelling every member of the Profession in future to join one of the Colleges, the Committee had not hesitated to support it, as it recognized the principles of uniformity of examination, reciprocity of practice, and registration. The Committee, in conclusion, urged their re-appointment, so as to be able, under the new and augmented powers of the Association, to press on Government the importance of passing a measure of Medical Reform during next session.

Dr. Heygate, of Derby, moved, and Mr. Eddison, of Nottingham, seconded, the following Resolution :—

"That the Report now read be adopted; that the cordial thanks of the meeting be given to Mr. G. Hastings, and the other members of the Committee, for their great and unwearied exertions; and that the Committee be re-appointed, with the addition of Dr. Henry."

Mr. Michael, of Swansea, called attention to the clause of the Medical Bill, which provided that the Council should consist of the President of the Board of Health, and of members to be nominated by the Crown. The Association had always kept in view the principles of representation, uniformity of education, and reciprocity of practice. There were valuable provisions in the Bill to secure the two latter objects; but the representative principle was entirely ignored. He protested against so much of the Report as gave support to the proposed constitution of the Council.

Dr. Sibson could conceive nothing more disastrous to the Profession than to give themselves up entirely into the hands of the Government. As an example of the tendencies of members of the Government towards quackery, he stated that the late President of the Board of Health admitted a well-known homœopathist to his table. One-third of the Council, but no more, might be elected by Government. The Council ought to be formed of men in whom the Profession had confidence.

Dr. W. Budd, of Bristol, also energetically opposed the nomination of the Medical Council by the Government. Looking at the predilections of several statesmen in favour of various forms of quackery, were these the persons to whom the destinies of the Medical Profession ought to be entrusted? What could have moved the Reform Committee to place such confidence in the Ministry? Was it the sacrifice of 20,000 soldiers in the Crimea by scurvy—a disease which Medical science had almost annihilated? He opposed the nominee Council on other grounds also. Public bodies and professions were gradually becoming enmeshed in a web of centralization. The Medical Profession had not occupied a high position in the country; but they were free.

Mr. Norman, of Bath, supported the Report.

Dr. Richardson asked whether the indignities heaped on Medical men in the Army and Navy were an inducement to the Profession to trust themselves in the hands of a Government Council. He also alluded to the fact, that there was no provision in the Bill for representing the University of St. Andrew's, the members of which were very numerous, in the Board of Examiners.

Mr. Nunneley, of Leeds, defended the principle of a Council nominated by the Government. More intrigue entered into popular elections than into Government appointments; and it would be better to place the nomination of the Council in the hands of Ministers responsible to Parliament, than in those of a non-responsible body. The new Bill would give Scotland two members in the Board of Examiners; and, if St. Andrew's were represented, that country would have more than its share of members.

Mr. Michael moved as an amendment, that so much of the Report as approved of the nomination of the Council by the Government be expunged; and, that the Committee be directed not to support a Bill giving Ministers power to appoint more than a third of the Council.

Dr. Budd seconded the amendment.

Sir Charles Hastings said, that the Report had been misunderstood. It had been the principle of one of the wisest reformers—Daniel O'Connell—always to accept instalments of what he had to get. He (Sir Charles) was anxious that an instalment of Medical Reform should be obtained; and, without the support of the Government, the support of the House of Commons would never be obtained. The Government had offered support on certain conditions, and had promised to make the Colleges representative; and it would have been the act of idiots, on the part of the Committee, to reject the offers of Government because all their demands had not been complied with. If the members talked till the next anniversary, they could do nothing wiser than accept the Report of the Committee.

Upon a division, the amendment was lost, and the original motion carried, by a considerable majority.

The members composing the Medical Reform Committee of the Association are—Sir Charles Hastings, Sir John Forbes, Dr. Lankester, Dr. Sibson, Dr. G. Webster, Dr. Noble, Mr. Ancell, Mr. Nunneley, Mr. Southam, Mr. Cartwright, Mr. Stedman (Guildford), Dr. Henry, and Mr. G. W. Hastings.

After a short adjournment, the members re-assembled at half-past two p.m.

The Report of the Medical Benevolent Fund was read by Mr. Newnham. On the motion of Sir John Forbes, the report was adopted, and a vote of thanks was given to Mr. Newnham.

Mr. Langston Parker read the address in Surgery, selecting as his subject, "The use of Caustics in the Treatment of Cancer."

Dr. Herbert Barker, of Bedford, read a paper on "The Treatment of Continued Fever," in which he insisted strongly on the importance of ventilation.

Mr. Smith, of Southam, made a communication on the subject of "Self-supporting Dispensaries."

In the evening, a *Soirée* was held in the Town Hall, at which nearly 250 gentlemen were present. A number of surgical instruments, microscopes, chemical and medicinal preparations, anatomical and pathological drawings, etc., were exhibited; and at intervals several pieces of music were performed on the splendid organ.

On Thursday the members re-assembled at half-past 11 o'clock, when the address in Medicine was delivered by Dr. Salter, of Ryde, on ".A knowledge of the Laws of Epidemic Diseases."

The following papers were also read :—

1. Case of a Child with Two Heads, alive. By Dr. William Budd, of Bristol.
2. Cases of Spinal Disease. By S. Hare, Esq., of London.
3. On the Form of the Chest in Health and Disease, illustrated by Photographs. By Dr. Sibson, of London.
4. Inquiries of the Nature and Principles of the Treatment of Phthisis. By Dr. Edward Smith, of London.
5. On Moral Idiocy. By Dr. Davey, of Bristol.
6. On Infantile Eczema. By Erasmus Wilson, Esq., of London.

Votes of thanks were passed to the authors of the addresses and papers, which were ordered to be published.

Thanks were also voted to the Governors of King Edward's School, to the Mayor and Corporation for the use of the town-hall and organ, to the President of the Association, to Sir Charles Hastings, and to those gentlemen who had had the management of the local arrangements.

At half-past 6 o'clock, about 100 of the members dined together at Dee's Hotel, and thus terminated the meeting at Birmingham, the proceedings of which have, we believe, given general satisfaction.

THE HEAT in the South of France is described by the local Journals as exceedingly great. At Marseilles, on Saturday, at noon, the thermometer marked in the shade, and with a northern aspect, a little over 93 degrees of Fahrenheit.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the Meeting of the Court of Examiners on the 25th ult. :—

Donaldson, John Brown, Newcastle-on-Tyne.
Fisher, Charles Holdrich, Bungay, Suffolk.
Forster, Thompson, Southwell.
Fotheringham, Thomas, Southampton.
Gill, Thomas Bullen, White Lion-street, Pentonville.
Humphreys, C. J., Llygodig House, Montgomeryshire.
Hunter, Charles, London.
Joule, Richard, Stone, Staffordshire.
Leachman, Frederick, Highbury.
Leonard, Charles George, Old Kent-road.
Morgan, William Evans, Brixton, Carmarthenshire.
Patrick, Jarman, St. German's, Norfolk.
Pilcher, Edward William Humphrey, New Broad-st.
Pope, Alfred Crosby, Leamington.
Rowe, Samuel, Leicester.
Tayler, William Henry, Sunbury, Middlesex.
Thomas, John, Narberth, Pembrokeshire.

At the same Court, Mr. John Little passed as a Naval Surgeon, his diploma bearing date April 12, 1850.

The following gentlemen were admitted members on the 28th ult :—

Adcock, George Robert, Shepperton.
Bateman, Charles, Leicester.
Boyce, William Stewart, Leominster.
Burke, Stephen John, Dublin.
Dawson, Jean Jacque, Ecuador.
Edwardes, Charles Laurence, Pitsea, Essex.
Keogh, Patrick Mooney, Dublin.
Proctor, William James, Belfast.
Quiroz, Rafael Leandro, San José, Costa Rica.
Steel, S. E. Blaenavon Iron Works, Monmouthshire.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Wednesday, July 30, 1856 :—

Adams, William, Ottoman Army.
Alexander, Charles Linton, Brunswick-st., Dover-rd.
Bennett, William H. R., St. John's, Newfoundland.
Dickenson, Jonathan, Newcastle-upon-Tyne.
Evans, Charles Jewel, St. Neot's, Hunts.
Fisher, Charles Holdrich, Bungay, Suffolk.
Gillet, Thomas Carthew, Truro, Cornwall.
Graham, Thomas, Sydney.
Green, Samuel Henry, Manchester.
Hargrave, Thomas Deane, Dublin.
Hughes, Hugh Spencer, Bangor, North Wales.
Sutton, William, Halstead.
Waylen, Alfred Robert, Western Australia.

University and King's College, Aberdeen, August 1, The following, after Examination, had the Degree of M.D., conferred on them :—

Brabazon, Anthony Beaufort, Dublin.
Bull, George, Sussex.
Duncan, Charles Peter, London.
Dunstan, Alfred Drew, Cheshire.
Elliott, John Wilson, R.N.
Evans, Charles Reeves, London.
Evans, Thomas Robert, Norfolk.
Gresham, Charles Hutchison, Glasgow.
Jeffery, John, Berwickshire.
Knott, George Austin, Coventry.
Langton, James, Southport.
Morgan, William, London.
Mugliston, George T. W., Stratford.
M'Veugh, John, Dublin.
Nedley, Thomas, Dublin.
Parker, Thomas Preston, Sunderland.
Price, Allen Ford, Deptford.
Pryce, Charles, Middlesex.
Vinen, James Northcote, London.

DEATHS.

Lane.—August 3, at the Grove, Highgate, after a short illness, aged 28, George Frederick Lane, Esq., Surgeon. M.R.C.S.E. 1850 ; late Resident Surgeon to the Royal Free Hospital. Author of a Paper "On the Admission of Air into the Veins ;" "On Internal Obstructions ;" "On Cleft Palate," etc.

Waring.—August 3, at Parson's-green, Fulham, John Arthur Waring, Esq., aged 48. M.R.C.S.E. 1830 ; L.S.A. 1835 ; late Surgeon in H.E.I. Company's Service.

The King and Queen's College of Physicians in Ireland have acceded to the articles of agreement signed by the representatives of the several Colleges of Surgeons of the United Kingdom, in London, on the 27th of June, 1856.

Apothecaries' Hall of Dublin.—At a meeting of the Apothecaries' Hall of Dublin, held pursuant to Act of Parliament, on Friday the 1st of August, John McMunn, Esq., M.D., was elected Governor ; and Charles Henry Leet, Esq., M.D., Deputy Governor for the year 1856-7. Christopher Shaw, Esq., M.R.C.S.E., was elected a Member of the Court of Examiners in the room of Dr. W. O. Barker, resigned. The other Examiners were re-elected.

The Legion of Honour.—Her Majesty has granted "leave and licence" to accept and wear the insignia of the several classes of the Imperial Order of the Legion of Honour attached to the following names by the Emperor of the French :—*Knights :* for Service as Medical Officers—Mr. David Deas, C.B., Inspector of Hospitals and Fleets ; Mr. John Rees, Deputy-Inspector of Hospitals and Fleets ; Mr. James Walsh, M.D., Surgeon ; Mr. William Richard Edwin Smart, M.D., Surgeon ; Mr. James Jenkins, M.D., Surgeon. *Officers (4th class) :* Staff : Sir John Hall, K.C.B., M.D. *Knights (5th class) :* Medical Staff : Deputy-Inspector General Archibald Gordon, M.D., C.B. ; Deputy-Inspector General James Mouatt, M.D., C.B. ; First-class Surgeon Thomas Patrick Matthew ; Senior Surgeon Ordnance Medical Department, Richard Coffin Elliott ; Inspector-General Thomas Alexander, C.B. ; Staff-Assistant-Surgeon Thomas Clarke Brady ; Second-class Staff-Surgeon Thomas Lizertwood, M.B., late 40th regiment ; and Henry Thomas Sylvester, M.D., 23rd regiment ; Acting Assistant-Surgeons George Fair, M.D., and Charles O'Callaghan ; Assistant-Surgeon William Younge Jeeves, 38th regiment ; Assistant-Surgeon William Alexander Mackinnon, 42nd regiment ; Assistant-Surgeon John Gibbons, 44th regiment. Royal Artillery : Surgeon S. H. Fasson, 95th regiment ; Surgeon William Pearson Ward, 17th regiment ; Second-class Staff-Surgeon Thomas Park ; Assistant-Surgeon Arthur Henry Taylor.

Mr. Brady, M.P.—We regret to announce that the hon. Member for Leitrim has been confined to his bed for some days by an aggravated attack of English cholera, accompanied by severe cramps. The case was for some time doubtful, but we are happy to be able to add that Mr. Brady is now convalescent.

Association of Medical Officers of Asylums and Hospitals for the Insane.—At the Annual Meeting of this Association, held on the 1st of the month, at the County Lunatic Asylum, Derby, Dr. Hitchman, President, in the Chair, Dr. Forbes Winslow, D.C.L., was unanimously elected President for the ensuing year. Sir B. C. Brodie, Bart., D.C.L., and Sir H. Holland, Bart., D.C.L., were elected honorary members of this important and influential Association.

Medical War in the East.—On the occasion of the retirement of Dr. Rigler, Professor of Clinical Medicine at Constantinople, great efforts were made to supply his place by a Frenchman. The Sultan has, however, decided that the appointment shall be made by the Vienna College of Professors.

Dr. Valentine Mott.—In an interesting paper by Dr. Stewart in this month's *Edinburgh Journal*, describing the condition of the Medical Profession in the United States, he thus enumerates the successful career pursued by Dr. Valentine Mott as an operative Surgeon : —"The whole world accords him the credit due to his first and greatest undertaking—the ligature of the arteria innominata. The patient, whose primitive iliac he tied more than twenty-five years ago, still lives in the enjoyment of perfect health. He has ligatured the external iliac artery seven times, and lost three of the patients ; the internal twice, both of whom were cured ;

the femoral artery fifty-two times, with the loss of one patient; the primitive carotid forty-two times, with a fatal result in two instances; the subclavian, *without* the scaleni, six times, all successful; and *within* once, the patient dying of secondary hæmorrhage. His original operations upon the maxillary bones have been very numerous; and he considers his excision of the clavicle for osteo-sarcoma as the most difficult and dangerous operation that can be undertaken. He has cut for the stone 164 times, with a loss of seven patients. His operative career, though he is nearly 70 years of age, has not yet terminated, for he writes word that his second case of ligature of the internal iliac has just left the city."

University College, London.—On Thursday last, the prizes for the present year were distributed to the successful students in the Faculty of Medicine at this collegiate institution, and additional interest was lent to the ceremony by the presence of Major-General Sir W. F. Williams, who presided on the occasion. There was an unusually large attendance in the theatre. Among the gentlemen occupying seats on the platform were—Earl Fortescue, the Baron de Goldsmid, Mr. George Grote, the historian of Greece, Dr. Boott, Mr. John Taylor, Mr. F. J. Wood, and Mr. Robert Hutton. After the transaction of some preliminary business, in course of which it was stated incidentally that Dr. Sandwith, whose name is inseparably identified with the siege of Kars, was formerly a student at this Hospital, the chairman distributed the prizes, accompanying the presentation of each with expressions of a complimentary and encouraging kind:—

Anatomy (Professor G. V. Ellis, Dean of the Faculty).—(*Senior Class.*) Gold Medal, A. J. Balmanno Squire, of London. 1st Silver Medal, Philip S. Jones, of Sydney, New South Wales. 2nd Silver Medal, George E. Jeaffreson, of Framlingham, Suffolk. Certificates, 4. William Pile, of Barbadoes. 5. Victor Bazire, of Mauritius. 6. Albert Buchanan, of London. (*Junior Class.*) Silver Medal, Richard William Garnham, of London. Certificates, 2. William Hickman, of London. 3. George H. Philipson, of Newcastle-upon-Tyne. 4. William E. Allen, of York. 5. John M. Hind, of Nottingham. 6. Samuel H. Adams, of Bedford. 7. Alfred P. Dowson, of Geldestone, Norfolk. 8. Jeremiah M. Donne, of Castle Carey, Somersetshire.

Anatomy and Physiology (Professor Sharpey, M.D.)—Gold Medal, Michael Foster, of Huntingdon. 1st Silver Medal, Alfred Woodforde, of London. 2nd Silver Medal, Thomas Howkins, of Spaldwick, Huntingdonshire. Certificates, 4. William H. Carden, of Cheltenham. 5. equal, William Pile, of Barbadoes, William E. Allen, of York. 7. Joseph R. Gasquet, of London. 8. Joseph F. White, of London.

Chemistry (Professor Williamson, F.R.S.)—Gold medal, Albert Buchanan, of London. 1st Silver Medal, Samuel H. Adams. 2nd Silver Medal, Felix H. Kempster, of London. Certificates, 4. Isidore B. Lyon, of London. 5. Eustace Smith, of Leamington, 6. Victor Bazire. 7. John M. Hind. 8. Joseph Frank Payne, of Leatherhead. *Birkbeck Laboratory Students.*—Gold Medal, Michael Foster. 2nd Certificate, Robert Williamson, (a) of Stockport. 1st Silver Medal, Henry Henwood, of Stockbridge. 2nd Silver Medal, Lewis Hutchings, of Hastings. Certificates, 5. William V. Russell, of Leamington. 6. John Davis, of London. 7. Orm Crofton, of Roscommon, Ireland. 8. William Shawcross, of Stockport.

Comparative Anatomy (Professor Grant, M.D.) — Gold Medal, Sydney Ringer, of Norwich. Certificates, 2. Michael Foster. 3. James Shepherd, of Blackburn, Lancashire.

Surgery (Professor Erichsen).—Gold Medal, Edward Wynne Thomas, of Oswestry. 1st Silver Medal, William T. Fox, of Broughton, Hants. 2nd Silver Medal, Thomas Mason, of Leominster. Certificates, 4. Robert Lamb, of London. 5. equal, James Teevan, of London, Robert Furse, of Southmolton, Devon. 6. James Caley, of London. 7. Edward Bruneau, of Mauritius. 8. Joseph Thorniley, of Heaton Mersey, Lancashire.

Medicine (Professor Walshe, M.D.)—Gold Medal, James G. Blake, of Taunton. 1st Silver Medal, Michael Castaneda, of London. 2nd Silver Medal, Joseph R. Gasquet. Certificate, 4. William G. Groves, of Devon.

Botany (Professor Lindley, P.L.D.)—Gold Medal, Samuel H. Adams. Silver Medal, Michael Foster. Certificates, 3. William Hickman. 4. F. H. Kempster, Robert Braithwaite, of Whitby, York. 5. John Marriott Hind; John Quicke, of London; William Edward Allen; Robert E. Graves, of London; Charles L. Pile.

Pathological Anatomy (Professor Jenner, M.D.) — Gold Medal, William T. Fox; Silver Medal, Henry James Alford.

Medical Jurisprudence (Professor Carpenter, M.D.—Gold Medal, Charles H. Marriott, of Kibworth, Leicester. Certificate, Thomas Hawkins.

Practical Chemistry (Professor Williamson).—Gold Medal, Victor Bazire. Certificates, 2. George E. Jeaffreson, of Suffolk. 3. Charles H. Marriott. 4. Eustace Smith. 5. William H. Carden. 6. Charles L. Pile; Lincoln Roberts, of London.

Goldsmid Prize (£25), for Analytical Research, to Robert Williamson.

Midwifery (Professor Murphy, M.D.).—Gold Medal, Sidney Ringer. 1st Silver Medal, George H. Philipson. 2nd Silver Medal, C. H. Marriott. Certificates, 4. Joseph Thorniley. 5. A. Woodforde; F. Voley Pouguet, of Mauritius. 6. Richard William Garnham. 7. Thelwell Pike, of Berkshire. 8. J. H. Troy, of London. 9. Joseph Lockwood, junior, of Huddersfield.

Materia Medica (Professor Garrod, M.D.)—Gold Medal, Victor Bazire. 1st Silver Medal, Robert Furse. 2nd Silver Medal, William Edward Allen. Certificates, J. M. Donne. 5. G. H. Philipson, Albert Buchanan. 7. Edward Clement Stoeker, of Congleton; F. H. Kempster. 9. J. B. Lyon. 10. James Shepherd, of Blackburn; William R. Carden.

Fellowes' Clinical Medals. — Winter Term.—Gold, James Gibbs Blake, of Taunton. Silver, John C. Thorowgood, of Totteridge. Summer Term,—Robert Lamb.

General Williams, at the conclusion of the ceremony, said his reason for taking the chair on this occasion was that he should be enabled to say a few words to his young friends around him, as well those who had received prizes as those who had not, in reference to one of their fellow-students, Dr. Sandwith (cheers), who accompanied him during the whole of the recent struggle in Asia Minor, whose zeal and virtues he hoped they would emulate, and when they arrived at his age, he trusted they would be held in the same estimation by the British public. It had been hinted that he (General Williams) might bear some testimony to the value and efficacy of the Medical Profession, from his experience as a soldier in a remote region, and under circumstances with which, he did not doubt, they were all more or less familiar. When he went into Armenia, he found the poor Turkish soldiers, amounting to some 400 or 500, stretched on straw, in the most wretched state of filth and degradation, and without comfort or consolation of any kind during sickness, or while suffering from wounds received in battle; but Dr. Sandwith, notwithstanding that he himself was suffering at the time under a most severe illness, by his zeal and ingenuity completely changed the condition of the Hospitals, and when he (General Williams) left, he saw the poor invalid soldiers laid upon clean beds, instead of straw, and surrounded by every comfort that humanity or Medical skill could dictate; and, instead of lying on the field of battle after being wounded, by the same tact and consideration on the part of Dr. Sandwith, ambulances and mules were provided, and every other thing necessary for the accommodation and comfort of the wounded soldier. (Cheers.) He (General Williams) would hold that gentleman up to his young friends around him as a pattern, and hoped most sincerely that they would imitate his example. There was another very distinguished member of this Hospital with the army in the East, Dr. Parkes, and, although he was not personally known to that gentleman, he had heard from various sources of his great worth from those who had witnessed his efforts, and who esteemed him for his virtues as a Medical man. (Cheers.) He (General Williams) begged to offer his very sincere congratulations to the young men to whom he had that day distributed medals, which he trusted would operate as an additional incitement to exertion in attaining skill and knowledge in their Profession, and be regarded by them as the foundation of their future fame. Those, on the other hand, who had been unsuccessful he counselled to persevere, in the hope that on a future occasion they would be among the competitors who bore away the rewards of merit. With regard to the conduct of the students at this establishment, it gave him pleasure to observe that there

(a) Mr. Williamson obtained the same honour last Session. The First Silver Medal was given to Mr. Henwood, the next in merit.

was not on record one single instance of insubordination, breach of discipline, or vice. (Hear, hear.) That must be a source of comfort and consolation to the parents and friends who had sent them there to be educated, in many instances at great anxiety and expense, and he was sure every one who heard him would join with him in offering to those friends his congratulations on a circumstance so creditable. He would only add that he hoped this institution would continue to flourish as it had hitherto done, and he would remind his young friends, just entering upon the active duties of life, that a moral death from degradation or from unworthy or immoral conduct was ten thousand times more deplorable than death on the field of battle, where a man laid down his life in the service of his country. (Cheers.) Lord Fortescue, in moving a vote of thanks to the Chairman, eulogized, in passing, the modesty of Dr. Sandwith, in that, while relating in his interesting book on the siege of Kars the conspicuous gallantry of every one who distinguished himself on that memorable occasion, he never once referred to his own. The motion was carried by acclamation, and, General Williams having acknowledged the compliment, the company separated.

A Public Benefactor.—The retirement of Sir Jamsetjee Jeejeebhoy, now a feeble old man of seventy-three years, into private life, has called forth a public meeting in his honour, in Calcutta, at which Lord Elphinstone presided, and which voted the erection of a statue to this great public benefactor. Himself the architect of his own fortune, Sir James Jamsetjee has expended in public benefactions alone no less a sum than the equivalent of £250,000, and in private charities it is supposed about as much. Among the former is the large native hospital in Bombay for the reception not of Parsees only, but of natives of every cast and creed, and which is named after him.

A Park for Finsbury.—Lord Palmerston, to a deputation of the inhabitants of Finsbury, who waited on him on Wednesday week, expressed his willingness to propose to Parliament a grant of £50,000 towards the object of the park, being one-fifth of the amount required, as originally proposed by Mr. Gladstone, if the further sum of £200,000 could be raised by local taxation.

Intense Heat of the Weather at Liverpool.—St. John's Market, from 11 to 12 o'clock on Saturday night, became unusually excited from the effect of excessive heat on the marketable commodities exposed for sale; and that butchers, poulterers, provision dealers, etc., might dispose of their perishable stock, the market authorities allowed the gates to be open until midnight, being one hour later than usual. Meat was selling at any price that purchasers would offer, butter was all but in a liquid state, bacon and ham had the appearance of being half boiled, and cherries, strawberries, and other ripe fruit were running to decay. The thermometer at the Liverpool Exchange registered 125 degrees in the sun, and 86 degrees in the shade, at 10 o'clock on Sunday morning.

Strychnia.—We understand that the following papers will be read by Mr. Horsley at the ensuing meeting of the British Association:—1. On several new methods of testing strychnia and brucia. 2. A new method of extracting the alkaloids from nux vomica for toxicological and manufacturing purposes. 3. Experiments on animals with strychnia, and probable reasons for the non-detection of strychnia in certain cases. 4. A new method of instituting post-mortem researches for strychnia. 5. On the conversion of tannin into gallic acid. 6. On the manufacture of iodine.

"Sausages."—At Hammersmith, on Wednesday, James Bridge, a sausage and saveloy maker, of No. 16, New-street, Notting-hill, appeared to answer a summons at the instance of the Kensington Vestry, charging him with having a quantity of meat, which was in the course of preparation for use, totally unfit for the food of man. Mr. Giles Lovett, Inspector of Nuisances for Kensington, said, on Friday afternoon I went to the defendant's house, and in the back parlour I found a quantity of beef, some of which was in pickle. I took some of the meat out of the tub, and found it was quite putrid. I saw a sack on the floor, in which there were thirteen large joints of beef, each joint having from four to six ribs or bones in them. I took some of the meat out of the sack, and found it very green and offensive to the smell. There were also some bones and pieces lying about in a similar condition. I further discovered upwards of 50 lbs. of sausage-meat made up for use, which I have no doubt was a portion of the same meat. This I could not say was as bad as the other, as it was so highly seasoned with spices, etc. The sausage-machine was in a filthy state, and the whole of the premises were in a dirty condition. I called in Mr. Godrich, the Medical Officer of health, and he at once gave an opinion that the meat was unfit for food. I then seized the meat, and, with the assistance of Pummere, the beadle, I buried it at Wormholt Scrubs. I seized about 150lbs. altogether. It consisted of sixteen large joints of meat and some small pieces. The defendant was not at home, but his wife informed me that the meat was not so bad, and they were going to make polonies of it. Mr. Francis Godrich, the Medical Officer of Health, said that the meat was quite unfit for human food. The effluvium from the meat and the premises could be experienced outside, although there was a garden between the path and the house. Mr. Dayman said these cases were very difficult to prove, and when they were established he was not disposed to be lenient. The poorer classes were quite at the mercy of these people, and it was necessary that they should be protected from buying unfit food. He thought he passed a most lenient sentence when he ordered the defendant to pay £4, being 5s. for each piece of meat.

Cholera.—Sixteen deaths from cholera in London are reported by the Registrar-General as having occurred last week. They are variously described by the Registrars as cholera, cholera infantum, choleraic diarrhœa, and English cholera. In 13 of the cases the duration was—in one, 12 hours; in one, 36 hours; in two, 2 days; in two, 3 days; in two, 4 days; in two, 5 days; in one, 6 days; in two, 7 days; three of the cases were attended with collapse. One was the case of a gentleman, aged 79, "choleraic diarrhœa," 5 days, collapse 24 hours. The Registrar adds: "Rice-water purging, suppression of urine (3 hours), cold extremities without cramps." From the duration of the disease as above given it may (we trust) be inferred that the disease was in reality "summer cholera," and not that virulent form to which the term "Asiatic" cholera has been given. In this hope we are borne out by the investigations of the Registrar-General in regard to the epidemic of 1848—9. That public officer remarked in his Report that the term "English" cholera is objectionable, as it implies that the disease is peculiar to England; whereas it prevails, in nearly the same form, all over the world, and is described by Celsus and the ancient writers, as well as by Sydenham. For the sake of distinction, as it is so much under the control of temperature and season, it may be called "Summer Cholera." About half the fatal cases of Asiatic cholera terminate within twenty-four hours of the appearance of its characteristic symptoms: the average duration of 19,232 fatal cases in males was 2·06 days, and of 20,236 cases in females 2·10 days. The average duration of 4045 fatal cases of diarrhœa in males was 16·04 days, of 3851 females 16·69 days. The summer cholera has an intermediate duration of about five days. In 1848 more than half the cases of Asiatic cholera terminated in less than a day; half the cases of summer cholera did not terminate in three days; and half the cases of diarrhœa lasted more than six days.

Diarrhœa.—While this disease appears to be on the increase, as compared with previous weeks of the year, the deaths are still ten below the average of the same week in ten years. In 1849, during the cholera outbreak, the number of deaths from diarrhœa in the week ending August 4, was 179—54 more than in the past week. The intense heat which has prevailed,—the large quantities of fermenting, and even rotting, fruit which are brought to market, and sold indiscriminately to children,—and the amonnt of tainted meat which some people will or must buy, are sufficient to account for the derangement in health indicated by the deaths from diarrhœa; and sufficiently testify that in respect to this disease and cholera, so far as they have gone, the people's health is in the people's hands.

The West Indies.—The health of the West India Islands was getting worse, and yellow fever becoming general, more particularly among the shipping at St. Thomas, Jamaica, and Havannah. The Royal Mail Company's ships were more or less affected by the disease, and a very sickly season was expected.

Mortality Notabilia.—The rate of mortality in London is still below the average rate which the inhabitants have suffered in former summers. 1025 deaths were registered in the week that ended on Saturday, August 2; while the cor-

rected average of the week is 1259, or, omitting the week of previous years, when cholera was epidemic, 1102. Of the persons who died 515 were females, 510 males; and in the previous week the deaths of females exceeded the deaths of males. Although the females living in London greatly exceed the males in number, the deaths are generally in the inverse proportion. Of the 152 deaths at the age 20-40, sixty-six were referred to consumption (phthisis), 5 to diseases of the respiratory organs; in the aggregate 224 deaths in the week were referred to these causes. Diarrhœa is the prevailing disease of the week; it killed 125 persons; namely, 94 infants under a year old, 17 children of the age 1-2, 2 of the age 2-3, and 3 of the age 5-10; 9 adults of the age of 20 and upwards. 89 of the deaths were on the north, 36 on the south side of the Thames. To cholera 16 deaths are referred; 12 children under 5 years of age died of this disease; the rest were adults.

Births.—The births of 869 boys and 870 girls,—1739 children, were registered; average 1431.

Meteorology.—The wind blew generally from the south-west and south-east during the week, which opened in clouds and rain, but became bright and cloudless on Thursday, Friday, and Saturday. Electricity was positive, and generally of moderate tension. The barometer was 30·006 inches on an average, and did not fluctuate to any extent. The heat was excessive for this climate; the mean highest day temperature was 82·4°, the maximum was nearly 90° (89·8°) in the shade on Saturday; the mean lowest night temperature was 56·1°; and the mean temperature of the week was 67·6°, or 5·4° above the average.

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	1	4	8	3	21	8
North	490,396	4	9	3	6	21	15
Central ..	393,256	1	5	7	3	22	6
East.....	485,522	3	3	11	2	25	16
South	616,635	2	8	8	4	36	10
Total..	2,362,236	11	29	37	18	125	55

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, August* 2, 1856.

Causes of Death.	In the Week ending Saturday, August 2, 1856. Deaths of Persons. At all ages. Mean temp.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	° 67·6						° 62 5
All Causes	1025	595	152	120	123	27	1144 5
Specified Causes	1015	593	152	120	123	27	1139·9
Diseases:—							
1. Zymotic Class	323	259	29	17	14	4	460·7
2. Dropsy, Cancer, and others of uncertain seat	44	7	8	14	13	2	39·1
3. Tubercular Class	174	78	69	24	3	..	187·1
4. Of Brain, Nerves, etc. ..	112	59	5	14	31	3	109·3
5. Of Heart, etc.	35	4	9	8	13	1	33·4
6. Of Respiratory Organs ..	100	58	5	22	13	2	76·2
7. Of Digestive Organs ..	65	29	15	10	9	2	66·8
8. Of Kidneys, etc.	7	2	2	3	..	..	11·2
9. Of Uterus; viz.—Puerperal Disease, etc. ..	4	..	4	..	..	..	8·9
10. Of Joints, Bones; viz.—Rheumatism, etc. ..	7	2	2	1	2	..	7·6
11. Of Skin, etc.	2	1	..	1	..	..	1·6
12. Malformations	3	3	..	..	..	..	3·1
13. Debility from Premature Birth, etc.	29	29	..	..	..	..	30 6
14. Atrophy	48	40	1	..	7	..	36·7
15. Age	27	..	..	..	15	12	35·0
16. Sudden	7	2	2	2	1	..	3·9
17. Violence, Privation, etc...	28	20	1	4	2	1	28·7
Causes not specified.. ..	10	2	..	..	..	..	4·6

BOOKS RECEIVED.

Ediuburgh Medical Journal. August. 1856.

Journal für Kinderkrankheiten. Heft 5 uud 6. Erlangen. 1856.

The Pharmaceutical Journal. August. 1856.

Criminal Lunatics: are they Responsible? By J. Russell Reynolds, M.D. Lond. London. 1856.

The American Journal of the Medical Sciences. July. 1856.

The Progress of Preventive Medicine and Sanitary Measures. By A. W. Barclay, M.D. Cambridge. 1856.

Annual Report of the Grant Medical College, Bombay. Sessiou 1855-6. Bombay. 1856.

TO CORRESPONDENTS.

We have received the Report of the Meeting of the Crimean Medical and Surgical Society.

Mr. Thomas A. Brandt's cases will be acceptable.

Juvenis.—The best Works on those subjects are Druitt's Surgeon's Vade Mecum, Ramsbotham's Obstetric Medicine and Surgery, and Erasmus Wilson's Anatomist's Vade Mecum.

X. Y. Z.—It is far the best plan for a pupil, at the commencement of his career, to reside with a respectable practitioner who can and will help the youth in his studies. It is not a more expensive course than the other, and is often much less so.

Dr. Robert Adams' interesting account of a case of Suicidal Poisoning by Strychnia has been received, and will be put in type immediately.

A Tyro.—Tapioca and Cassava are both obtained from the *Iatropha Manihot*, which is a poisonous plant. The acrid principle is dissipated by heat, and the substance used in commerce is only a form of starch.

Mr. Anderson.—There is no law in existence which affects the case in question: you must abide by your contract.

Dr. Ransom.—The expense alluded to is borne by the authors of the communications. We are sorry if there has been any misunderstanding, but we did our best to make the matter plain.

The woodcuts illustrative of *Mr. Field's* case have been received.

A Constant Reader.—By a mistake of the printer, the passage was erroneously rendered. It should have been—"We require better evidence than that which we at present possess to overcome our credulity." In other words, we do not believe in the miraculous cures in question.

A. B. C.—We cannot recommend our correspondent to adopt any other course than to treat the conduct alluded to by silent contempt.

Dr. J. R. Pretty's letter consisting almost entirely of extracts from his own work, we think it unnecessary to publish it. We have already noticed Dr. Pretty's book in our columns, and those who wish to consult it, can of course do so by purchasing it of any bookseller.

COMMUNICATIONS have been received from—

Mr. Merton; Mr. James Long; Dr. Thomson; Mr. John Horsley; Dr. Andrew Smith; Dr. C. F. Moore; Mr. J. J. Fox; Dr. W. D. Moore; Dr. R. Neale; Dr. J. R. Pretty; Mr. Smith; Dr. M'Loughlin; M.D. Brighton; Dr. W. H. Ransom; M.R.C.S. and L.M.; Mr. T. Westropp; A Tyro; Mr. Anderson; Dr. John Ogle; Juvenis; X. Y. Z.; Mr. J. F. Thomson; Mr. A. G. Field; Dr. Robert Adams, Dublin; St. Mary's; The Crimean Medical and Surgical Society; Mr. Thomas A. Brandt; Mr. T. H. Huxley; Mr. W. Adams; Mr. G. Lade; A Constant Reader; University College, Aberdeen; Mr. W. T. Iliff, M.B.

APPOINTMENTS FOR THE WEEK.

August 9. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

11. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

12. *Tuesday.*

Operations at Guy's, 1 p.m.

13. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

14. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

15. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

LECTURES
ON
GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.,
Lecturer on General Natural History at the Government School of Mines and Fullerian Professor of Physiology, Royal Institution.

LECTURE VII.

(Concluded from page 134.)

The *Tæniadæ* and the *Acanthocephala*, like the *Trematoda*, entirely parasitic in habit, differ from them in the total absence of any mouth or digestive cavity. The *Tæniadæ*, or Tapeworms, are ribbon-like creatures, usually divided throughout the greater part of their length into segments, whose normal habitation is the intestinal cavity of vertebrate animals; in fact, though capable of existence elsewhere, it is there alone that they are able to attain their complete development.

The anterior extremity of a Tænioid worm is usually called the head, and bears the organs by which the animal is attached to the mucous membrane of the creature which it infests. These organs are either suckers or hooks, or both conjoined. In the genus *Bothriocephalus*, there are two rudimentary suckers only, one on each side of the head. In *Tetrabothrium*, there are four suckers, arranged symmetrically around the head. In *Tænia*, four suckers are combined with a circlet of hooks, disposed around a median terminal prominence. In *Tetrarhynchus*, two or four suckers are combined with four remarkable proboscidiform organs, arranged symmetrically around the axis of the body, and capable of protrusion from its anterior extremity. Each proboscis (Fig. 4 c.) is a closed tube, which enlarges posteriorly into a strong muscular bulb, and is filled with a liquid. The anterior half of this tube is, as it were, invaginated into the posterior portion, and its extremity is connected by a longitudinal muscle with the interior of the bulb. The outer surface of the anterior half of the tube is covered with strong hooks, and, when the proboscis is retracted by the action of the longitudinal muscle, this outer surface of course becomes internal, and the hooks are entirely concealed. On the other hand, when the longitudinal muscle is relaxed, and the bulb contracts, the invaginated half is forced out, and the everted inner surface, covered with its hooks, protrudes from the head.

In *Dibothrium typus* (Wagener) the neck or narrowed portion which connects the head with the rest of the body is covered with recurved spines. At the posterior part of the neck, in all *Tæniadæ* except *Ligula*, transverse contractions make their appearance, and these becoming separated by wider intervals, give rise to the appearance of distinct segments in the body. Each segment contains a separate set of male and female reproductive organs, which attain greater completeness the nearer we approach the hinder extremity of the body, until at length the hindermost segments are distended with ripe ova. In this condition they are usually thrown off, and each segment exhibiting a certain amount of independent vitality, has been called a *proglottis*. As fast as the *proglottides* are detached from the hinder extremity of the body, new ones are developed at its junction with the neck, and it is not known that there is any limit to this process; but, inasmuch as there is reason to believe that the heads of old *Tæniæ* lose their hooks, it would seem probable that there is some natural termination to their existence.

In the diagram (Fig. 4) a Tænioid worm is represented with only a single segment (B.), which, if detached, would become a proglottis; but to convert it into a representation of an actual *Tænia*, etc. (a), it is only necessary to add an indefinite number of such segments between the existing one and the neck. The simplified diagram, however, contains all the parts which exist in any of the *Tæniadæ*.

A single ganglion has been discovered, situated in the axis of the head, and sending off nerves to the suckers, in some *Tæniadæ*; but no organs of sense are known to exist. There is, as I have already stated, no trace of an alimentary canal; the oral apertures which have been described have no existence; and the vessels which have been regarded as a part of the alimentary system, belong, in truth, to the water-vascular system, which is as well developed in these worms as in the *Trematoda*. At the posterior extremity of the body there is a contractile vesicle opening externally by a pore, and sending two or four branches forwards along the sides of the body to the head. Here they are in the *Tæniæ* connected by a circular vessel, and in the *Tetrarhynchi* and *Tetrabothria* make great loops and convolutions in the substance of the suckers. When the segments are developed, transverse branches, in some cases, connect the lateral canals at the anterior margin of each. In their course these principal trunks give off numerous branches, which divide and subdivide, forming eventually a fine network like that of the *Trematoda*. The fine branches are ciliated, but the main trunks rarely present any cilia. According to Wagener the water-vascular system opens at several points of the body, the contractile vesicles being correspondingly multiplied in *Tænia osculata*, *Tricenophorus*, *Dibothrium claviceps*.

A very characteristic peculiarity of the *Tæniadæ* is the existence of a peculiar clear, oval, strongly refracting corpuscles, which are scattered through the parenchyma, beneath the superficial structureless tegumentary layer. They present a concentrically laminated structure, and usually consist of carbonate of lime; but I am inclined to think that this is a degeneration, and that they are primarily composed of organic matter. These bodies have not unfrequently been mistaken for ova.

The reproductive apparatus of the *Tæniadæ* is, in most respects, similar to that of the *Trematoda*. In each segment there is a single, or, in some cases, a double set of male and female organs, the shallow vestibule with which both communicate opening by a pore, usually at the side of the segment. From the vestibule a narrow vaginal duct passes back to a common cavity (presenting a posterior dilatation, the vesicula seminalis of Van Beneden,) into which the short oviduct leading from the single or double ovary, opens. It also receives the contents of the vitellarian ducts, which can be traced forwards on each side of the body, and then become lost. Stretching forward from the common cavity is a sort of dilatation of its wall, which becomes larger as the fully formed ova accumulate, and eventually occupies, in a more or less irregularly ramified form, the greater part of the substance of the segment. A penis, often armed with hooks or spines, is contained within a sac, as in the *Trematoda*, and receives a simple cylindrical vas deferens, which can be traced back, arranged in zig-zags, for some distance into the segment. Beside these clearly distinguishable organs there are scattered through each segment certain clear vesicles, while at its margins separate granular masses are distinguishable. The latter are regarded by Van Beneden as cutaneous glands; but it appears to be much more probable that they constitute a vitellarium, the organ described as such by Van Beneden being merely the vitellarian duct. On the other hand, having found rudimentary spermatozoa in the clear vesicles of a *Tetrarhynchus*, I am inclined to think that these are the testes, the convoluted tube which exactly resembles the vas deferens in *Trematoda*, being, in fact, merely the vas deferens. No internal vas deferens has as yet been discovered in the *Tæniadæ*, and Van Beneden states, that he has more than once witnessed the act of self-impregnation taking place in a segment.

The course of the development of the embryo in the *Tæniadæ* appears to be similar to that which has been described in the *Trematoda*; but the embryo itself is very peculiar, consisting of an oval non-ciliated mass, provided upon one face with six hooks, three upon each side of the middle line (Fig. 8. G.) The anterior, middle, and posterior hooks upon each side are unlike one another, but like those of the opposite side, so that we have here an indication of a bilateral symmetry which completely vanishes in the circlet of hooks of the adult Tænia-head. The *Tænia*-head is, in fact, a growth superinduced upon the embryo, much in the same way as we shall find that of an Echinoderm to be superinduced upon its embryo.

Leuckart, who has studied this process with peculiar care in *Cysticercus pisiformis*, describes the gradual development of a solid conical thickening of a part of the wall of the vesicular embryo. This mass projects inwards, and is the rudiment of the head and neck of the *Tænia*. An excavation then makes

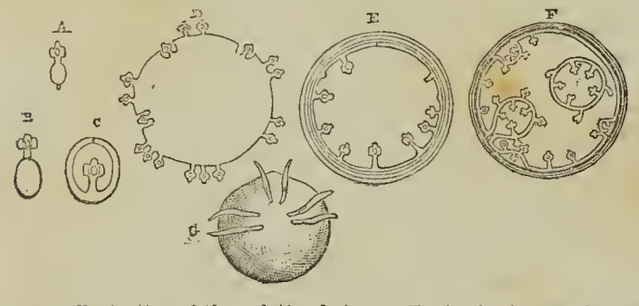
(a) In *Ligula* the body remains undivided, the reproductive organs one repeating themselves.

its way gradually into the thickening from without inwards, so that it assumes the figure of a flask with a thick bottom. Upon the latter the hooks and suckers are developed, and it assumes the form of a perfect *Tænia*-head. The embryo in this condition has been termed a *Scolex* (Van Beneden), while the original vesicular body of the embryo which now incloses the anterior part of the *Scolex*, as in a sac, has been called the *receptaculum Scolicis* (Von Siebold). Should the embryo be placed in favourable circumstances, the *Scolex* protrudes its head from the sheath formed by the neck, emerges from its receptacle, which remains on the hinder extremity of the body in some cases, but drops off in others, and proceeds to elongate and develope segments in the region between this part and the neck. When in this state—which is that in which the Tæniadæ are ordinarily known—Van Beneden has termed the worm a *Strobila*. Every Tæniod worm, therefore, (except *Ligula*,) passes through four forms—the embryo, the *scolex*, the *strobila*, and the *proglottis*.

As I have already stated, the only locality in which the *Tænia* can attain its perfect development is in the alimentary canal of a vertebrate animal, and apparently of a carnivorous vertebrate. Nevertheless, parasitic organisms, whose alliance with the *Tæniadæ*, though long suspected, has only lately been demonstrated, are found in many other situations, *e.g.*, the eye, the brain, the sub-serous and inter-muscular connective tissues, and the liver, in both *Vertebrata* and *Invertebrata*. These are the so-called cystic worms, including the genera *Cysticercus*, *Anthocephalus*, *Cœnurus*, and *Echinococcus*.

If we imagine the *receptaculum scolicis* of a young Tænia to become dilated into a large sac, we shall have a *Cysticercus;* and the like process taking place in an embryo *Tetrarhynchus*, will give rise to an *Anthocephalus*. If the saccular body of the embryo becomes very large, and developes many heads, each of which may be either protruded or invaginated in its own portion of the sac, a *Cœnurus* will be produced.

Fig. 8.

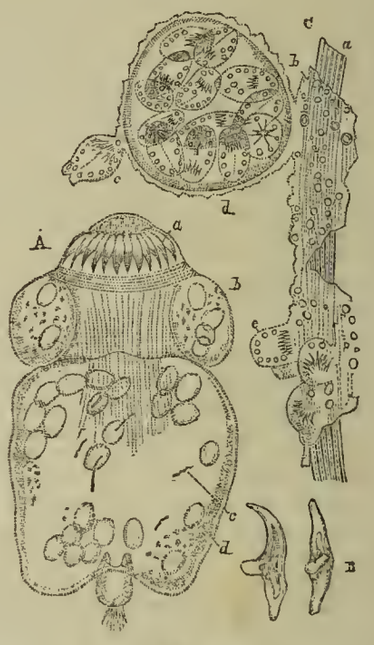


Diagrams illustrative of the relation between *Tænia*, *Cysticercus*, *Cœnurus*, and *Echinococcus*. A. B. Young *Taniæ* in the Scolex stage, the latter with an enlarged *receptaculum scolicis* into which the head and neck are withdrawn in C. *Cysticercus*. D. *Cœnurus*. E. Hypothelial condition of *Echinococcus*, in which "Tænia heads" are developed only in the inner surface of the primary cyst. F. *Echinococcus* with secondary cysts. G. Embryo Tænia (after Stein).

The structure of *Echinococcus* is so peculiar as to require a more detailed explanation. The cysts of this singular parasite are, as is well known, ordinarily developed within the liver, and attain in some cases a very great size. Each primary cyst consists of three layers, the two inner of which belong to the *Echinococcus* itself, while the outermost is an adventitious investment, the product of the infested organism. The innermost layer is a delicate membranous sac, full of liquid, which may be termed the primary cyst. It is, in fact, the living distended *receptaculum scolicis* of the original *Tænia*-embryo, whence the *Echinococcus* is derived. The middle layer is composed of laminæ of an elastic substance, analogous to chitin, and is secreted by the primary cyst.

The inner membranous wall of the primary cyst gives rise to a multitude of bud-like processes which gradually become metamorphosed into *Scolices*, at first retracted within their receptacles (Fig. 9. C. *c*,) but afterwards completely extending themselves, and then becoming detached with great readiness. In this condition they constitute the free "Echinococcus-heads" which are always found floating in the liquid contents of the primary cyst (A). There are, besides these, other projections into the cavity of the cyst, formed, not by a single bud, but by a raising up of the membranous from the elastic layer, in consequence of the development of *Scolices* upon its outer surface. With the development and enlargement of these external Scolices, the saccular projection thus produced becomes more and more prominent, carrying with it, of course, any Scolices which happen to have been developed upon its inner surface, and gradually becoming connected with the primary sac by a narrower and narrower neck (C. *d*.) The neck at length becomes completely divided, and the sac then floats freely, as a secondary cyst, in the primary one. So long as the two are connected, the *Scolices* upon the outer surface of the secondary cyst remain in full life, but after the detachment of the secondary cyst, the external *Scolices* wither away and die, and the secondary cysts eventually present hardly a trace of these bodies or of their primitive attachment. It is easily intelligible that by the repetition of this process of development a number of secondary cysts are eventually lodged within the primary one; and if we suppose that the primary cyst finally disappears, while some of the secondary ones throw out an elastic coat and then give rise to tertiary cysts—the origin of the so-called pill-box aggregations will be comprehensible.

Fig. 9.



Echinococcus veterinorum. A. "*Tænia*-head" or scolex. *a*. Hooks. *b*. Suckers. *c*. Cilia in water-vessels. *d*. Oval, strongly refracting particles. B. Hooks. C. Portion of the elastic cyst *a*. with the inner membranous primary cyst *b*. Scolices developing from its inner surface *c*. and *e*., and a secondary cyst *d*.

It may be said, however, that the connexion between the Cystic and Cestoid Entozoa, although rendered highly probable by these structural considerations, remains a mere hypothesis, so long as the actual transition of a *Tænia* embryo into a *Cysticercus*, a *Cœnurus*, or an *Echinococcus*, has not been experimentally demonstrated. This link in the chain of evidence has been recently most effectually supplied by the researches of Küchenmeister, Haubner, Leuckart, Van Beneden, and, more especially, of Von Siebold.

The intestines of puppies fed with *Cysticercus pisiformis* are found, in the course of a few weeks, to be full of *Tænia serrata*. On the other hand, if a rabbit be fed with the ripe *proglottides* of *Tænia serrata*, the embryos which are hatched immediately begin to wander from the cavity of its intestine, and bore their way, by means of the hooks with which they are furnished, through its walls, until they reach some blood-vessel. By the current of the blood they are carried into the liver, and here Leuckart has traced their further development. A week after being fed with the ripe ova of the *Tænia*, the liver of the rabbit presents numerous white corpuscles, like miliary tubercles, scattered through its substance, each of which is a minute cyst, formed by exudation, containing an embryo not more than 1-150th of an inch in diameter. The hooks have disappeared, but are sometimes to be found in the walls of the cyst. These embryos grow to 1-16th of an inch in length, and become elongated, so as almost to resemble an Ascarid in form; they then make their way to the surface of the liver, and pass out of it into the peritoneal cavity. The embryo is now converted into a *scolex* by the development of a Tænia-head in the way that has been described, at one end of the embryo, the rest of whose body becomes converted into a vesicle filled with liquid, in whose delicate walls the

ramifications of the water-vessels are visible. M. Rainey's late observations on the development of *Cysticercus cellulosæ* (b) appear to agree, to a certain extent, with those of Leuckart.

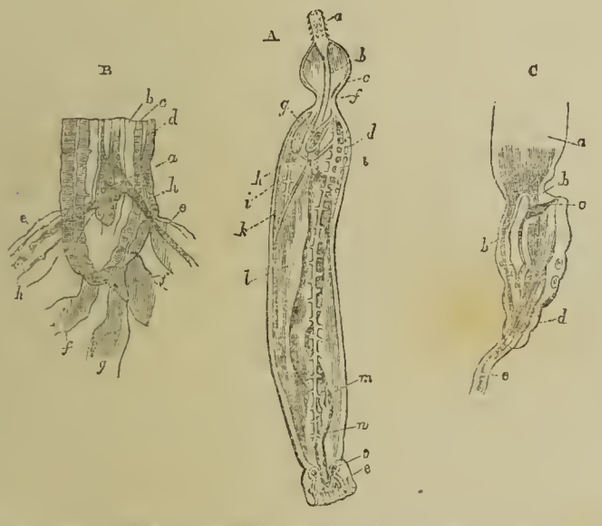
In like manner, *Cysticercus fasciolaris* is rapidly developed within the liver of white mice, fed with the ripe *proglottides* of *Tænia Crassicollis*, the *Tænia* of the cat, and *Cysticercus Cellulosæ* in the muscles of pigs fed with the *proglottides* of *Tænia solium*.

If a lamb, instead of a rabbit, be the subject of the feeding experiment with *Tænia serrata*, the results will be very different. Within a fortnight symptoms of the disease known as the 'staggers' manifest themselves, and in the course of a few weeks the *Cœnurus cerebralis* is found well developed within their brains. Leuckart states, that, while in lambs and yearling sheep these experiments succeed with great regularity, he has never been able to attain the same results in adult sheep or in goats.

Von Siebold has pointed out the bearing of these facts upon the important practical problem of the prevention of the "staggers." The *Tænia* which gives rise to the *Cœnurus* can attain its fertile condition only in the intestine of a carnivore; while, on the other hand, the *Cœnurus* can only proceed from the metamorphosis of the embryo of the *Tænia*. Now the only carnivore which much frequents the haunts of sheep is the dog, which is not unfrequently fed with portions of the bodies of sheep which have died of the "staggers," or which may have become infested with the *Tænia* in other ways; and will then pass the *proglottides* with his fæces, whence the embryos may be readily introduced into the stomachs of the grazing sheep. Von Siebold suggests, therefore, that when the "staggers" has made its appearance in a flock, the sheep-dogs should be carefully examined. If, as Von Siebold affirms, however, *Tænia serrata* and *solium* are the same, the inspection should be extended from the dogs to their masters.

Echinococcus is the product of a different species, puppies fed with the cysts presenting a peculiar *Tænia*, *T. Echinococcus*, characterized by the small number of segments of the *Strobila*.

Fig. 10.



Echinorhynchus. A. Diagram exhibiting the relative position of the organs *a*. Proboscis. *b*. Its stem. *c*. Anterior enlargement. *d*. Body. *e*. Posterior "funnel." *f*. Neck. *g*. Meniscus. *h*. Superior oblique tubular bands. *k*. Inferior muscles of the proboscis. *l*. *m*. Genitalia. *o*. Penis, or vulva, B. Lower extremity of the stem of the proboscis. *a*. ganglion. *b*. Vascular space. *d*. Outer coat. *c*. Inner wall. *e*. Tubular band, with the nerve *h*. *f*. Muscular bands. *g*. Suspensorium of the genitalia. C. Part of the female genitalia. *a*. Ovary. *bb*. Duets leading from ovary to uterus spermiducts (?). *c*. Open mouth of Oviduct. *d*. *e*. Uterus and vagina.

The phenomena presented by the wanderings of the other *Tæniadæ* are quite as remarkable. The encysted *Tetrarhynchi* are found in osseous fishes and Invertebrata, while their sexual *Strobilæ* are met with only in the alimentary canal of the Plagiostomes. *Bothriocephalus solidus*, an asexual form inhabiting the peritoneal cavity of the Stickleback, becomes the sexual *B. nodosus* in the intestines of the water birds by which these fish are devoured. *Triænophorus nodulosus* becomes encysted in the liver of the *Salmonidæ*, but attains its perfect development in the alimentary canal of the Perch and Pike. Whether the embryos of the *Tæniadæ* pass through any other intermediate stages than those just described, in the course of their wanderings, is as yet unknown; but the discovery of zooids analogous to the *Redie* and *Sporocystes*, or the filamentous germ-sacs of *Bucephalus* among the *Trematoda* in the *Tæniadæ*, must be regarded as anything but improbable.

The *Acanthocephala*.—The genus *Echinorhynchus* presents so many distinctive peculiarities, as thoroughly to deserve the place in a separate family which is generally assigned to it.

The *Echinorhynchus* of the Flounder, whose structure may serve as an illustration of that of the group, inhabits the rectum of that fish, which it pierces in such a manner that the anterior extremity or head projects, inclosed within a cyst, upon the peritoneal surface, while the body hangs freely into the cavity of the intestine. Where the worm traverses the wall of the rectum, it presents a much constricted neck. It would appear that, eventually, the *Echinorhynchi* completely pass out of the intestine, as they are found enclosed in detached cysts lying in the peritoneal cavity. The anterior extremity the *Echinorhynchus* is produced into a short cylindrical proboscis, covered with many rows of recurved hooks, and, behind this, it forms a dilatation, in which the integument and the muscular coat are separated by a considerable interval. The body, behind the constricted neck, which separates it from this anterior dilatation, has a thick, yellowish, outer wall, between which and the inner muscular tunic lies a system of vessels consisting of two longitudinal trunks, connected by a network of anastomosing canals.

I could not observe that these canals possessed distinct walls, nor were any cilia visible in them; but the minute molecules which floated in the clear fluid which they contained, were driven to and fro, apparently by the contraction of the body. Inferiorly, the vessels all terminated in blind canals, disposed around the margin of the funnel-like posterior extremity. Internal to the vessels lies a double layer of anastomosing muscular fibrils, the external of which are circular, while the internal are longitudinal. The cavity of the body is filled with a fluid, in which the ova, or spermatozoa, float, and at its anterior extremity two elongated oval bodies depend from the parietes, and hang freely in it. These are the *Lemnisci* of authors; they are traversed by vessels continuous with those of the parietes. The axis of the proboscis is continued downwards into an elongated subcylindrical stem, rounded below, which hangs down like a handle into the cavity of the body. The extremity of the stem is connected by broad retractor muscles with the parietes, and gives attachment to the suspensory ligament of the reproductive apparatus. Two other bands (*e*) are attached a little above these, and run obliquely forwards to the parietes; they are not mere muscles as ordinarily described, but contain a wide vessel, continuous with a large sinus, separating the axile portion of the stem of the proboscis from its investing coat. In the axis of the stem of the proboscis is the oval ganglion (Fig. 10. B. *a*.), which sends off some small branches upwards, and two larger lateral trunks, which can be traced into the vessels of the oblique bands, and probably supply the walls of the body.

There is no mouth or alimentary canal in *Echinorhynchus*, so that the animal is probably nourished by imbibition through the walls of the body. The reproductive organs are, both in the male and in the female, attached by a suspensory ligament to the extremity of the proboscis, and extend thence through the axis of the body to the posterior extremity. Here they open in a papilla at the bottom of a funnel-shaped terminal dilatation of the body, which exists both in the male and in the female, but is much more marked and separated by a constricted neck from the body, in the former. On each side of the papilla is an organ which has much the appearance of a sucker, but which is apparently non-contractile, while the funnel itself undergoes constant and rhythmical contractions.

In the male the testes are two oval sacs, one behind the other, connected by double vasa deferentia, often provided with peculiar accessory glands, with the genital outlet, which is provided with a long penis. In the female the ovary is a single, long, thin-walled, cylindrical tube, whose anterior end

(b) Proceedings of the Royal Society, No. 18. The young vermicular form of *Cysticercus cellulosæ* found by M. Rainey, appears to be a condition similar to that at which *C. pisiformis* emerges from the liver. I must confess, however, that the connexion between these vermicular *Cysticerci*, and the elongated setose sacs containing reniform corpuscles, appears to me to be anything but obvious. Miescher and Von Siebold have described bodies apparently identical with these last in the muscles of the mouse. See Von Siebold's remarks on a paper of Prof. Hessling's, Zeitschrift für Wiss. Zoologie, B. V., p. 199. The whole question, however, is well worthy of further research.

was usually empty for a short distance. Further back, clear, pale, rounded masses appeared, containing cavities in which corpuscles, like the germinal spots of ova, lay. More posteriorly still these corpuscles became elliptical, and were surrounded by a membranous coat, which gradually thickened, and gave rise internally at each end to a spiral filament which surrounded the enclosed egg. The ova in this form then pass into the cavity of the body, where they accumulate in great numbers; but I did not find in this species the free floating ovarian masses described by Von Siebold in other *Echinorhynchi*. From the lower end of the ovarium two short oviducts or rather spermiducts (C. *b*.) arise, and almost immediately unite into a sort of uterus, which is continued into the vagina. The uterus passes above into a short, open, funnel-shaped canal (C. *c*.), which lies between the two oviducts, and, according to Von Siebold, takes in the ova from the perivisceral cavity by a peculiar swallowing action.

Von Siebold states, that the embryos of the *Acanthocephala* are provided with hooks disposed like those of the *Tæniadæ*, but only four in number. Hardly anything of importance is known with regard to their further development, except that asexual *Echinorhynchi* are found in *Cyclops*, and in the muscles of fishes. Leuckart states, that the former acquire sexual organs in the alimentary canal of *Gadus lota*.

LECTURES
ON THE
VARIETIES OF CONTINUED FEVER AND THEIR DISCRIMINATION.

DELIVERED AT

St. Thomas's Hospital.

By THOMAS B. PEACOCK, M.D.,
Assistant-Physician to St. Thomas's Hospital, etc.

Lecture II.

TYPHUS FEVER—*Continued.*

In my last lecture I gave a general sketch of the ordinary course of cases of typhus, but as descriptions of this kind, drawn from memory, are apt to be wanting in exactitude, and to convey, in some respects, erroneous impressions, I have carefully analysed the notes of thirty-five well-marked cases of the disease which have fallen under my notice within a short time; and several of which some of you have had the opportunity of seeing in my wards.

Period of Admission.—First, then, in reference to the period at which the patients are ordinarily admitted into Hospital, I find that six of these patients, three males and three females, took the disease in the Hospital, and that, in five others, the precise period of previous indisposition was, from the state of the patients at the time of their admission, incapable of being ascertained. In two other cases, though the patients had been seriously ill respectively for three and six days, they had been indisposed for some time previously. Deducting these 13 cases, the remaining cases were admitted into the Hospital, 1 on the second or third day, 3 on the third, 3 on the fourth, 2 on the fifth, 2 on the sixth, 6 on the seventh, 1 on the eighth, 1 on the sixth or eighth, and 2 on the ninth day from seizure; or, of the 22 cases in which the precise period of admission was ascertained, 16 were admitted from the third to the seventh days inclusive, 18 before the seventh day from the commencement of illness, and none after the ninth day. Of the five patients in whom the precise period could not be ascertained, the previous duration of illness was vaguely stated at from two to seven weeks.

Eruption.—The eruption which I have mentioned as characterising this form of fever, was present in each of the 35 cases, and if we exclude the seven in which the precise duration of illness could not be ascertained, it appears that 9 had the eruption out at the time of the patient's admission, and in 19 it came out while the cases were under observation.

In the first 9 cases the patients were admitted, 1 on the fourth, 1 on the fifth, 2 on the sixth, 3 on the seventh, 1 on the sixth or eighth, and 1 on the eighth day of illness. In the 19 cases, the eruption came out, 1 on the second or third day, 1 on the third, 2 on the fourth, 4 on the fifth, 5 on the sixth, 3 on the seventh, 2 on the ninth, and 1 on the ninth or tenth day; thus of the whole 28 cases, the eruption must have appeared, in 2 on the second or third day, in 3 on or before the fourth, in 5 on or before the fifth, in 7 on or before the sixth, in 6 on or before the seventh, in 2 on or before the eighth, in 2 on or before the ninth, and 1 on the ninth or tenth day from seizure; or, in 23 out of the 28 cases, the eruption must have appeared from the fourth to the seventh day of the disease inclusive. While, however, the eruption was present in the whole of these 35 cases, it must not be understood that it is of invariable occurrence in typhus. These cases, it must be remembered, were selected as characteristic examples of the disease. In some instances, but these are chiefly, if not always, very mild cases, the eruption is either very transient, or does not at all appear. Thus you have recently seen the disease spread from a patient in Elizabeth's Ward, under the care of Dr. Bennett, and infect two nurses; in the original patient the eruption was fully and characteristically out: in the nurse first affected, the eruption was also very marked, but the second had only a sharp febrile attack, without any eruption on the skin. Dr. Henderon, whose memoir prepared on this disease, as it ordinarily prevails in Edinburgh, in conjunction with the late Dr. Reid is the best which has been published, found the eruption in 108 out of 130 cases, and in 6 of those in which there was no eruption, the patients were admitted at late periods of the disease; so that in only 16 was it probably absent, and these were all mild cases. The eruption has been stated not to make its appearance in young children, but I have seen a child, 2½ years old, present the eruption in a characteristic form, where the disease affected, in a very severe degree, all the members of a family fresh from Ireland. Before the appearance of the eruption on the skin, there is occasionally a general redness of the surface observed, which, after continuing a few hours, or a day or two, subsides, and is followed by the characteristic typhous eruption. Of the cases here referred to, two presented this condition.

The eruption varies much in different cases, both as regards its extent, its peculiar form, and the period during which it remains. In some cases it is observed only on the abdomen and thorax, in others it is seen over the whole trunk, and extends to the shoulders, neck, arms, and thighs, and in yet others it may be traced on the face, forearms, hands, legs, and feet. When this is the case, it first appears on the body, and then passes to the face and extremities. The eruption, when it first appears, is generally slightly elevated above the surface of the adjacent skin, so that the finger passed over the surface experiences a feeling of roughness, without, however, any hardness. It is also usually discrete, a few spots appearing in different places widely separate, but as the eruption comes out, the spots become more numerous and the elevation subsides. When fully out, it is well described by Dr. Jenner, as consisting of spots and a subcuticular eruption. Formerly, having rarely had the opportunity of seeing the eruption at its first appearance on the skin, I supposed that one characteristic of the eruption was its never being elevated; but, more recently, I have seen the eruption coming out in several cases, and can fully confirm the accuracy of Dr. Jenner's description as to the spots being slightly elevated. This elevation is, however, only of short duration, and as ordinarily seen the spots are not elevated.

In colour the eruption is at first of a rose tint, and when pressed it disappears. The colour, however, becomes deeper with the progress of the disease, and after a day or two, the period varying with the malignity of the attack, the spots become of a livid or purple hue, and do not fade completely on pressure; and, at a still later period, they are entirely petechial and unaffected by pressure. In size they vary from a mere point to one or two lines in diameter, and towards the latter stages, they may form patches of still larger size. Their outline is uniformly ill-defined, and often the eruption, never assumes a distinct form, but resembles an eruption in the skin, without coming properly out. The two eruptions may be only scanty and pale, or they may be very copious and distinct.

The duration of the eruption also varies. Occasionally it is very transient. Sometimes on examining the skin of the abdomen at the time of the patient's admission, there is only a general mottling of the surface, such as often precedes the full appearance of the eruption, but the next day or the day after, this appearance may be found wholly to have disappeared. In other cases, the eruption continues for severa

days unusually discrete, consisting of the spots with little or nothing of the subcuticular rash, and then entirely disappears, or becomes fuller and less defined. In some cases, the eruption never loses its property of fading on pressure; in others it rapidly becomes livid or entirely purpurous. Generally the eruption begins to be intermixed with the spots which do not fade on the second or third day from its first appearance and the petechial character of the spots becomes more marked for several days; and, in the more aggravated cases, many days often elapses before the larger and darker spots have wholly disappeared.

Of 13 cases which terminated favourably, and in which the changes of the eruption were carefully noticed, the mean period during which it continued out was 10 days. In one instance, however, the total duration was only 5 days, and in another it remained 17 days. In these 13 cases, in 1 it disappeared on the ninth day from the commencement of the symptoms, 1 on the twelfth, 2 on the fourteenth, 2 on the fifteenth, 2 on the seventeenth, 1 on the eighteenth, 1 on the nineteenth, 1 on the nineteenth or twentieth, 1 on the twentieth, and 1 on the twenty-third day; or out of the 13 cases, in 11 the eruption disappeared from the twelfth to the twentieth day from the period of seizure.

The disappearance of the eruption usually precedes the occurrence of convalescence, in the cases which terminate favourably and are uncomplicated, by from five to ten days. Of the 13 cases, the mean period which elapsed after the disappearance of the eruption before convalescence was established was six days. In one case, however, only two days intervened, in another the convalescence was protracted till fifteen days after.

In the following table the relation between the times of the appearance of the eruption, of its final disappearance, and of the establishment of convalescence, is shown.

Case.	Appeared.	Disappeared.	Convalescence.
In 1	4th	9th	11th
1	5th	12th	15th
1	5th	14th	18th
1	5th	17th	20th
1	6th	15th	20th
1	6th	17th	24th
1	6th	18th	33rd
1	6th	19th	25th
1	6th	23rd	31st
1	7th	14th	18th
1	7th	20th	27th
1	9th	15th	24th
1	9th or 10th.	19th or 20th.	25th or 26th

About the time of the disappearance of the typhus rash, an eruption of small vesicles occasionally makes its appearance on the skin, generally of the lower part of the abdomen, beneath the clavicles or on the sides of the neck. These vesicles are either round or flattened, and vary in size from half a line to one and a-half or two lines in diameter. At first they are bright and glistening, and, without being carefully looked for, may escape observation; but subsequently the fluid they contain becomes opaque, and afterwards dries up, leaving a slight desquamation of the cuticle in the situation which it occupied. The spots may be few in number or there may be a copious eruption, but this is not common in typhus, neither is the appearance of the vesicles very frequent in this disease. In only two of the cases analysed, were the spots present in such number as to attract attention. Though, from these vesicles appearing when the functions of the skin become restored and partial sweats appear, they have received the name of sudamina, they by no means always co-exist with perspirations; on the contrary, the part of the skin which they occupy is most generally dry and harsh. I have also observed that when the sudamina do not appear, the disappearance of the typhous rash is often followed by an eruption of small round pimples, the cuticle from which separates, and there is a slight desquamation of the skin; and this is most common when the typhous eruption has been very copious.

When speaking of the nervous symptoms in typhus I have mentioned that they vary much in degree. Sometimes there is only general torpor of mind, with, perhaps, some transient delirium at night, and slight deafness and some tremor of the hand. In other cases, however, the cerebral symptoms are very violent; there is constant active delirium, so that the patient requires to be restrained; the conjunctivæ are much injected, and the pupils contracted; and these symptoms give place with the progress of the case to constant low muttering, delirium, picking at the bed-clothes, and coma or convulsions. The respiration, which is always more or less embarrassed, may become greatly oppressed, and bronchitis or pneumonia are frequent complications. In the early stage nausea is a frequent symptom, but vomiting is of rare occurrence, at least after the establishment of the disease; and generally patients retain the food which is given to them. In the commencement the bowels are generally confined, and this continues through the earlier periods of the attack, unless aperients be given; but generally, in the advanced stages, the stools are passed three or four times daily, and they are voided involuntarily, and are fluid dark and offensive. Sometimes, especially in some seasons and in particular localities, diarrhœa is a more marked symptom throughout the course of the disease.

The tongue in the early stage of typhus is generally somewhat dry and covered with a thick whity brown fur; with the progress of the attack it becomes dry, especially on the dorsum, and coated with a thick, black, or deep brown coloured fur; with the advance towards recovery, it again becomes moist and white, first at the sides and then in the centre, and it gradually loses the thick white coating from the tip towards the base. Sometimes, in slight cases, the tongue continues throughout only dryish and covered with the whity brown fur.

Generally speaking, the pulse, in the early stage of the disease, is only moderately quick, 100 to 110; but at a later period it often becomes very quick, 130 to 140, and it is always very feeble; occasionally the beats are unequal in power, or there are intermissions; it then becomes very difficult to number the pulse, and this is especially the case when there is much subsultus tendinum or tremor of the hands. The frequency of pulse, also, varies greatly in different cases: sometimes throughout the attack the beats do not exceed 100 or are even only 80 or 90 in the minute. In a case which has just been discharged from the Hospital, the pulse on the eleventh day of the disease, when there were no very marked cerebral symptoms present, was only 64, and it continued to fall till, on the fifteenth day, it was only 52. In three other cases, two of my own and one of Dr. Bennett's, the same remarkable slowness has recently been observed. It is indeed not unfrequent, that, with the first signs of convalescence, the pulse, previously more or less accelerated, falls greatly, and occasionally, indeed, below the natural standard; but, as the patient receives food and gains strength and uses more exertion, it again rises; and often after he begins to leave his bed will number from 100 to 120, being of course much quicker when he is up, than while occupying the recumbent position.

I have mentioned, in my former lecture, that the amendment in the cases of typhus which terminate favourably is usually very gradual. About the time of the fading and disappearance of the eruption, there is some slight improvement manifested; the patient is less restless and delirious at night, and sleeps for longer periods. His pulse becomes stronger, and the skin is warmer and less harsh, and there is some tendency to perspiration, often, however, only partial, as on the face or arms. He also takes his food better, and becomes more intelligent; and these symptoms advance, till, at the end of a few days, he is able to take some solid food, is quite rational, and may be regarded as convalescent. The period at which this occurs, varies according to the severity of the case. Of 17 cases in which the periods of seizure and of convalescence were well ascertained, the mean period of convalescence was the 21st day. In one case convalescence was established on the 11th day from the commencement of the symptoms; in 2 on the 15th; in 1 on the 17th; in 3 on the 18th; in 7 from the 20th to the 25th inclusive; in 1 on the 27th; in 1 on the 28th; and in 1 on the 31st day.

I have never observed any decided proof that the fever has a greater tendency to subside on certain days, the critical days of the older writers, than on others, nor does its resolution appear to be effected by means of critical evacuations. Slight and even profuse local sweats are not unfrequent in cases in which the fever shows no remission, or even sometimes occurring symptoms of sinking, and profuse general perspiration is certainly not common. The patient in typhus usually appears to prove at uncertain periods, though mucbor striking changes, from the 18th to the 25th day; and [illegible] gradual, and unconnected with [illegible]

The period during which a patient may be detained in hospital, with this or any other disease, must necessarily be influenced by a variety of circumstances, affecting not only the individual, but also the Institution in which he is treated. He may be long in recovering his strength; or during the disease or convalescence he may have suffered from some serious local complications; or he may have no place of residence in which to obtain some rest before being able to resume his occupation; and thus his residence may be prolonged. On the other hand, the Hospital may possess very limited accommodation, and the demands upon it may be very numerous; and thus patients may unavoidably have to be discharged so soon as they can possibly leave. Of the cases which I have referred to in these lectures, I find that the mean duration of residence was twenty-nine days; one case only remained thirteen days, one fifteen, and two, eighteen days; while, in three others, the period of residence was extended, in two cases, to forty-nine, and in one, to sixty-three days;—the patients being detained in these cases for erysipelas of the head, followed by otitis and suppuration in the ear;—for wounds caused by sloughs on the nates; and for obstructive phlebitis of the veins of the thigh.

Contagion.—In the definition of typhus, I have spoken of the disease as contagious, and this is a well-ascertained point. You will find that a large proportion of the cases which you see can be directly traced to contagion. They occur in persons who have had intercourse with others labouring under the disease. In other instances, again, the patients may really have been exposed to contagion, though the positive fact be not ascertained. Thus they may have come into the Hospital from the common lodging-houses frequented by vagrants, where typhus is almost always prevailing. Of the cases here noticed, I have already said that six patients—three males and three females—took the disease in the wards of the Hospital from patients under treatment for typhus, and we have continued examples of the same kind falling under our notice. Thus, within the last month, a patient admitted on the 14th of January, with typhus, into Elizabeth's Ward, under Dr. Bennett, gave fever to the nurse, who sickened on the 11th of February; and who again infected a second nurse, who waited upon her, and who became ill about the 20th of February. At present I have in the Hospital two men labouring under typhus from the same family. On visiting the house from which the cases were removed, I found that all the residents had been ill with fever. The disease was prevailing in the next house, and the mother went in to assist in washing and dressing those who were ill, and, about fourteen days after, sickened with the disease. In about five weeks, the daughter was seized, and two weeks after, the father also sickened; and now, after an interval of a month, there is a second daughter ill in the house, and the two patients in the Hospital, who were lodgers. Thus every one brought within the influence of the contagion has had the disease. I found that in four houses in the same street,—Martin-street, Blackfriars,—seventeen cases had occurred, and a patient from one of the houses is now in Elizabeth's Ward, under Dr. Bennett, and convalescent from typhus.

While I resided in the Royal Infirmary of Edinburgh, in consequence of the pupils and nurses, and almost every one who entered the fever wards, being attacked by the disease, it was determined, by the managers, to try the effect of distributing the patients throughout the other wards, in the hopes that the poison might, by such means, be so diluted as to prove innocuous. As an experiment, four patients labouring under fever were placed in different parts of each ward, which usually contained thirty beds, and four beds were moved from the ward; so that each patient with fever occupied the space of two ordinary patients, and their beds were placed in the piers between two windows, and these were kept constantly open. Notwithstanding, however, these precautions, the fever spread to the patients in the adjoining beds, and in a month no less than twelve such cases of infection occurred. Nor did the evil stop here, for one patient, who had been in a bed it, to a fever patient, went out, sickened of fever after reach- ame, and spread the disease in a crowded court in so obviously free from any fever. Thus, without meaning may, however, mentum crucis was tried, and the result was the closeness of the practice was entirely abandoned. It ence operating upon the that these results were due to some other unfavourable influ- the Royal Infirmary; but such is not the case; I have in several other Hospitals seen fever spread in wards where the patients are mixed. I have seen this occur at the Royal Free Hospital, in our own Hospital in Jacob's Ward; and, as the fact I have above referred to, shows, also in the new wards, in which the space allotted to the patients is, I need not say, most ample. Indeed, that we do not more frequently see the other patients take fever, where as, in I believe all the London Hospitals, the fever cases are intermixed with the others, can only be explained by the comparative rarity of true typhus fever in London, and the very small proportion which such cases usually constitute to the whole of the patients in the wards.

The precise period which elapses between the receipt of the typhus contagion and the development of the disease, I am unable to give; but it would appear to be about ten to fourteen days. It also seems that the disease is usually most contagious during the period of convalescence, when the functions of the skin become more active. Thus it has been found at the Royal Infirmary of Glasgow, that if patients labouring under other acute diseases are, by mistake, sent into an ordinary fever ward they often escape contagion; but, if sent into a convalescent fever ward, they very generally contract the disease; and I have observed facts confirmatory of this inference. It should also be mentioned, that, as a general rule, persons are susceptible to the poison of typhus only once during life; exceptions to this grand rule are, however, as in the eruptive diseases, occasionally found.

Persons of all ages are susceptible to the poison of typhus, but it is especially apt to affect those in middle age. This is shown by the mean age of the 35 patients before referred to being 28; the ages of the two sexes nearly equal, but the females were somewhat above 30, the males slightly above 27, years of age. Of the cases included in the Edinburgh report, 50·6 per cent. were from 20 to 50 years of age, 44·8 per cent. under 30 years of age, and 5·3 per cent. above 50 years of age. Of the 35 cases, 31·4 per cent. were under 20 years of age.

Prognosis.—Typhus may prove fatal, as I have stated, from gradual increase of prostration of strength and oppression of the nervous system, the failure of the circulation in the lungs, the arrest of the proper functions of the excretory organs, and the influence of impure blood, producing paralysis of the nervous system; and this is the most frequent cause of death. Not unfrequently, however, life is more rapidly cut short by the occurrence of some local complication, the brain or its membranes becoming the seat of inflammation; or there may be a low type of inflammation of the bronchi or lungs, and especially in the posterior or inferior parts of the lungs; and no complication is more discouraging than that with hepatic disease, as indicated by the occurence of jaundice. In other cases retention of urine occurs, or the secretion of urine is suppressed, and the patient presents symptoms of uræmic poisoning. In one case, on the 9th day of the disease, the patient was seized with violent pain indicating obstructive arteritis, first of the right humeral, and then of the right femoral artery, the limbs became cold and dark, and death occurred on the following day, but unfortunately I was not able to obtain an examination of the body after death. In other cases the patient dies from sloughing of the nates, and in females I have seen sloughing of the vulva occasioning death. Another source of danger in typhus is the occurrence of syncope, either during the progress of the disease, by injudiciously raising the patient up to go to stool or to make the bed; or even without obvious reason, during convalescence. Generally speaking, after the subsidence of the fever, the patient progresses favourably towards recovery, allowance being made for the varying degrees of prostration of strength and for the effect of previous circumstances on his ordinary state of health; but, in other cases the patient may sink from complications which may then occur; thus the patient may die exhausted by the effects of extensive bed-sores; or unhealthy abscesses may form in the cellular tissue of the buttock or elsewhere; or erysipelas of some part of the body may supervene, especially of the head and neck, and prove fatal; or internal inflammation may occur from cold. In cases also which do well small abscesses often form in different parts of the body, as on the scalp or about the head, and especially when blisters have been applied; and these much protract recovery. I have also seen obstructive phlebitis of the veins of the lower extremities occur, and be followed by œdema of the cellular tissue or phleg-

masia dolens; and in one case one of the feet became gangrenous, the limb required amputation, and the patient died.

Of the cases of typhus which I have analysed, deducting 2 which died during convalescence,—1, as I have just mentioned, after amputation of the leg for gangrene of the foot, the other from erysipelas,—33 in number, 7 proved fatal, or 1 in 45, or 21·2 per cent.,—a very high rate of mortality. These cases, however, instead of being a fair average of the disease, such as would be seen in private practice, consisted of such as were selected by their severity to be sent to Hospital, and of those only, which being more characteristic were fully reported. To furnish a more accurate statement of the average mortality of fever in Hospital practice, I have referred to a report prepared by myself, of the fever cases treated at the Royal Infirmary of Edinburgh in 1841 and 1842; and I find that, of 820 cases of fever, nearly all of which must have been typhus, 114 proved fatal, or about 1 in 7⅕ nearly, or 13·90 per cent. During different epidemics of fever, and even at different periods of the same epidemic, the mortality varies considerably. Thus I find from the same report that, in 1839-40, the mortality at the Edinburgh Infirmary was 12·72 per cent. in 1840-41, 14·62 per cent.; and, in 1840-42, as I have before stated, 13·90 per cent.; yet, during this period, the disease prevailing was the usual eruptive typhus. Again, taking the mortality of the disease in 1841 and 1842, it sank from 15·35 per cent. in the last quarter of 1841 to 10·63 per cent. in the third quarter of 1842; showing the decreasing mortality of the disease with the decline of the epidemic.

Generally speaking, typhus, like most other acute diseases, is less fatal in females than in males. This does not appear to have been so in the cases I have tabulated; for, of 9 females, 2 died; while, of 24 males, 5 died, a rate very nearly equal for the two sexes; but, as I have before stated, the cases are not suitable for calculation. On referring to the Edinburgh report, I find that, in males, the mortality was 1 in 6⅓, or 17·07 per cent.; in females, 1 in 9$\frac{1}{11}$, or 10·81 per cent.

Typhus is also less fatal in early than in advanced life—a law which applies to other acute diseases. The cases analyzed are too few satisfactorily to establish this point; but they offer no exception to the rule; thus of 29 cases, under 40 years of age, 5 terminated fatally, while of 4 above that age, 2 died; or while the average age of the patients who recovered was 26·8 years, the average of those who died was 36·6 years. From the tables of the cases at the Royal Infirmary I find this law sufficiently shown, and not only in males but also in females; thus, of 204 persons, between 20 and 30 years of age, the mortality was 13·72 per cent., while of 31, between 50 and 60, it was 38·7 per cent.; or in males, at the former age, 15·6 per cent.; in females, 12 per cent.; and, at the latter age, in males, 35·2; and in females 42·8 per cent.

The period of death in the cases here referred to was—

The 2nd day	from	admission	and the 9th	from seizure;
3rd	,,	,,	9th	,,
5th	,,	,,	10th	,,
6th	,,	,,	13th	,,
11th	,,	,,	14th	,,
and the		,,	11th	,,
		,,	19th	,,

and the immediate causes of death in these cases were respectively—the sudden occurrence of intense jaundice; of gangrene of the right arm and leg; sloughing of the nates; extensive pneumonia of both lungs; erysipelas of the head and face; and, in the last two cases, both of which took fever in the hospital, gradually advancing exhaustion.

In two other cases the patients died during convalescence; in one on the 31st day from admission, and the 45th from seizure, of erysipelas of the head and face; and in another two months after seizure, after amputation of the foot for gangrene.

On referring to the report I have before mentioned, I find the mean period of the disease at which death occurred, was, in males, the 13th, and in females, the 14th day; and, that in 68·4 per cent., or nearly two-thirds of the cases, death took place between the 9th and the 17th days.

Morbid appearances.—It only remains for me to complete the description of typhus fever by describing the appearances which are found in the bodies of persons who have died of the disease.

Usually on examination after death decomposition is found rapidly to take place, so that the rigor mortis soon subsides, and the limbs are found flaccid, so that they can readily be placed in any position. The dependant portions of the body are found to present large patches or continuous surfaces of deep purple-coloured ecchymosis, and often there are small purple spots on other parts of the body which indicate the remains of the petechiæ observed during life.

The membranes and substance of the brain are generally found congested, and there are an unusual number of small, bloody points seen in its section. There is also generally some effusion in the subarachnoidal cellular membrane, and some excess of fluid on the ventricles and at the base; and the substance of the brain generally is soft. These appearances must not, however, be regarded as necessarily morbid. The congested state of the brain may be merely the result of the impeded respiration during the last periods of life, and of the fluidity of the blood, which causes it to flow into the most dependant parts of the body. The fluid effused into the ventricles and beneath the arachnoid, may have occurred gradually, as the effect of previous disease; or from the emaciation consequent on long continued want of sufficient food; or it may be merely the outpouring of fluid, to compensate the gradual diminution in the size of the brain, and especially of the convolutions, which occur sooner or later in all persons with the advance of life. And, lastly, the general softening bears relation to the flaccidity of the tissues generally, and when equal in different parts of the brain, can only be regarded as a post-mortem change. When, however, the fluid, instead of being clear and transparent, is opaque and more or less of a straw colour; when the membranes and substance of the brain are minutely injected; when the arachnoid is opaque and displays deposits of recent lymph, and when particular parts of the brain or the parietes of the ventricles are softened and œdematous looking, or entirely broken down, there can be no doubt of the previous existence of active inflammatory action. Such appearances are always met with in cases which have presented symptoms of active cerebral inflammation during life. But as all the ordinary symptoms of typhus in their greatest intensity may exist without the brain displaying any appearances of disease, such appearances when they do exist can only be regarded as accidental complications. I have dwelt the more fully on these points as the appearances which I have mentioned have been regarded as supporting the view of Dr. Clutterbuck, that fever essentially consists in inflammation of the brain and its membranes.

The bronchial mucous membrane is generally found to be reddened, and the tubes contain an unusual amount of secretion, of a thin spumous character; and the secretion is usually, doubtless from transudation after death, more or less bloody. The lungs are generally congested, especially towards the posterior and inferior parts, and sometimes this amounts to so great a degree, that these portions are rendered solid and airless,—the condition which has been termed splenization. Such a lung exudes much bloody serum when compressed. Sometimes there is genuine pneumonia in these portions of the lung, but rarely with much solidification, the disease rapidly running into diffuse suppuration; so that, on section, pus exudes with tarry blood, forming a dark, prune-juice-looking fluid. Not unfrequently, we find that condition to which the term "lobular pneumonia" has been applied, but which Dr. Gairdner has shown to be the result of collapse of the lung, consequent on the obstruction of the smaller bronchial tubes, other gradual failure of the respiratory acts during the low stage of the disease. In this condition a larger or smaller number of lobules are found completely solid, and of a deep purple colour, and the discoloured part is distinctly bounded by the interlobular cellular septa, and the surface is depressed below the level of the adjacent pulmonary tissue; indeed, the latter is sometimes emphysematous.

The heart is uniformly very flaccid. Its cavities, more particularly those of the right side, contain either dark blood entirely fluid; or imperfect, soft, scarcely decolorized coagula, intermixed with fluid blood. Frequently, also, the lining membrane of the heart and arteries is dyed of a deep mahogany colour.

The stomach generally contains a small quantity of the fluids recently taken, with some flatus, and its coats are generally more or less tinged with green bile, and display some passive congestion, but without any diminution of tenacity, or any thickening of the mucous membrane. Not unfrequently the mucous membrane at the larger curvature is found to be more or less corroded by the gastric juice.

The duodenum, jejunum, ileum, and large intestine, present ordinarily no appearance of disease, but there is occa-

sionally some redness in the dependent portions, from the fluidity of the blood, readily allowing it to accumulate in those parts. On careful examination, however, the passive nature of this engorgement will be readily seen, for the coats are not thickened or softened, but retain their natural smooth, glistening appearance. The mucous membrane is found as transparent as usual, and admits of being drawn off in strips of the usual length.

The solitary glands are generally very indistinct, and the aggregate glands present no appearance of disease. In young subjects who die at an early period of the attack, they can generally be readily seen, and are found with distinct margins, and marked by the well known small points or lines, but they are usually depressed below the level of the adjacent mucous membrane. In elder persons, and especially if they die at late periods of the disease, the glands can often scarcely be detected, and almost always require careful observation to be seen. I have paid much attention to the condition of these glands, and have found that in typhus cases generally, so far from presenting any appearance of disease, they are usually less distinct than in persons who died of other acute affections of similar duration, in which I have equally carefully noticed their condition. The mesenteric glands are not enlarged; the small intestines generally contain only some small quantity of fluid matter, with offensive flatus; but in the larger intestines, where there is also much flatus, the fæcal matter is usually somewhat hard. I have not unfrequently met with the small worms, the tricocephalus dispar, in the cœcum of persons who have died of typhus.

The spleen varies in its condition with the period of the fever: with the commencement of the disease it enlarges, and with the progress of convalescence returns to its natural size; with its enlargement it also becomes soft, so that in very aggravated cases, it forms a mere bag of diffluent pulp, or becomes pulpy with the slightest handling. This softened condition of the spleen bears a partial relation with the diminished crasis of the blood, and in some cases it seems to be aggravated by the solvent action of the gastric juice. In the cases in which the spleen was most soft, the period of death was from the 10th to the 15th day.

The liver and kidneys, like the other organs, are generally found flaccid and congested, and in cases where there has been suppression or retention of urine before death, the mucous membrane of the pelvis, and calyces of the kidneys, is usually found reddened. The bladder generally contains a small quantity of water.

Thus you will see, that typhus is rather characterized by the negative than positive features after death; and indeed the only appearance which may be regarded as of invariable occurrence when the disease terminates in death, is the fluidity and altered condition of the blood.

The following case affords an example of the appearances found on examination of the body after death from typhus:—

Case 3.—Typhus, probably fatal on the tenth or twelfth day.—Thomas Butler, aged 55, a labourer, admitted into Jacob's Ward, under my care, on the 5th of March, 1856. He was then stated to have been drinking previously, and to have been indisposed two weeks. He was so much prostrated that he required to be carried to the ward, and, when addressed, was very imperfectly conscious. His tongue was moist, and coated with a thick, whity-brown fur, and very tremulous. The pupils small, and the conjunctivæ injected. The hands were cool and livid; the pulse feeble and intermittent, so that it could not be numbered, and the skin generally cool. There was a copious mulberry rash over the abdomen; the spots were not elevated, and though some of them faded on pressure, the rest were livid, and did not fade. He was constantly moaning and talking to himself, and appeared to be deaf, but could be got to answer questions on addressing him in a loud voice. He was directed to take ammon. s. carb. gr. v., tinct. cinchonæ comp. ʒi., dec. cinchonæ ad ℥j. 3tia quaque horâ. Empl. lyttæ nuchæ; brandy 3 glasses.

March 6th.—To-day he has a less sunken appearance than yesterday, but he is less intelligent, and continually moans to himself. He is constantly picking at the bed-clothes, and drawing up his limbs, and has much tremor of the hands, and subsultus tendinum. The eyes are in constant motion, and the head is frequently twitched back. He cannot be made to protrude the tongue, and the pulse is incapable of being felt. He perspires very much, and there is a full typhous eruption on the skin, which only partially fades on pressure. He has a slight cough. He was directed to take the mixture every hour; to have blisters applied to the temples, and have the head shaved. He died at 12·30 the following evening.

The post-mortem examination took place at noon on the 8th of March:—

Body flaccid; skin covered in the depending parts of the body, more especially at the back of the scalp, trunk, and lower extremities, with large, ecchymosed patches, and elsewhere with small purple spots, apparently the remains of petechiæ.

On removing the calvarium and dura mater, extensive effusion was found in the subarachnoidal cellular tissue, elevating the membrane above the level of the convolutions. The membrane was opaque in places, and the Pacchionian bodies were unusually large and distinct. When the fluid had escaped, the convolutions were found widely separated. On section of the brain, an unusual amount of red dots were displayed. The lateral ventricles were much distended with fluid, the amount contained being certainly not less than a fluid ounce. This fluid was quite transparent and colourless. The consistence of brain was natural, and the walls of the ventricles were free from softening. There was a large quantity of fluid at the base of the skull, and when the brain was removed, the membranes were found loose, evidently from the escape of effused fluid.

The right lung was slightly attached at the apex to the parietes, by loose, cellular adhesions. The large bronchial tubes contained much thin, spumous fluid, deeply tinged with blood, and their mucous lining was minutely injected. The posterior part of the lung was much congested.

The left lung was free from attachments. The tubes were in a similar state to those in the right lung, and contained a similar secretion. The posterior part of the lung was greatly engorged, and, on section, purulent fluid, mixed with blood, exuded from the surface.

The heart was flaccid; its surface displayed a moderate deposit of fat, more especially in the right ventricle. The cavities, especially the right auricle and ventricle, contained dark-coloured fluid blood, mixed with soft, imperfectly decolorized coagula. The left ventricle was nearly free from blood. The valves were healthy.

The stomach contained a small quantity of mucus, tinged with bile. The mucous membrane was slightly injected, but not softened, being capable of being drawn off in strips of the usual length. At the greater curvature it was slightly dissolved by the gastric juice.

The glands of Brunner in the duodenum were healthy; mucous membrane of the jejunum and ileum healthy; free from undue vascularity, and of natural firmness. The plates of Peyer were so indistinct as only to be traceable on careful examination; and the mucous membrane covering them was not in any degree reddened, softened, or elevated above the adjacent surface. The cœcum and colon were healthy. The liver flaccid and somewhat pale. Spleen large, and so soft as to become pultaceous on the slightest pressure. The kidneys large; not unduly congested; the tunica propria capable of being readily removed. Bladder, containing a small quantity of urine.

This case affords an example of malignant typhus fever in a characteristic form, proving rapidly fatal; the precise period of the disease at the time of the patient's admission into the hospital could not be ascertained, but the appearance of the eruption would indicate the period to have been about the tenth or twelfth day. The cerebral symptoms were more marked than usual, and were probably referable to the intemperate habits of the patient, and his having been drinking freely before his seizure; this, probably, also explains the large effusion of fluid beneath the arachnoidal membrane and in the ventricles, for the character of the fluid and the absence of any softening of the walls of the ventricles, appeared to indicate an effusion of old date. Indeed, as I have before said, cases of typhus characterised by cerebral disturbance during life often present no appearance of disease after death.

Longevity in the United States.—It is seen by the official returns, that during the past year 73 soldiers of the revolution have died, and 43 persons who were over 100 years of age. The oldest white man was 110; the oldest white woman 109; oldest male, coloured 130; oldest female, coloured 120. It may be remarked that the two last were slaves.

ORIGINAL COMMUNICATIONS.

AN ACCOUNT OF A CASE OF SUICIDAL POISONING BY STRYCHNIA;

WITH SOME OBSERVATIONS ON THE SPECIAL POINTS OF SIMILARITY AND DISSIMILARITY BETWEEN THE EFFECTS ON THE HUMAN BODY OF AN OVER-DOSE OF STRYCHNIA AND THE SYMPTOMS OF ORDINARY TETANUS.

By R. ADAMS, M.D., M.A.,
Surgeon to the Richmond Hospital.

The symptoms of the case I am about here to relate were so peculiar, and the circumstances attending it so remarkable, that although eight years have passed since its occurrence, the particulars of it are still deeply impressed on the recollection of all who witnessed it. I do not, however, venture to state it from memory, but copy nearly verbatim my notes of the case, which were taken down on the day of its occurrence. Many of the particulars I find have also been entered in his record by Mr. Hyndman, the city Coroner, who presided at the inquest held on this occasion, on the 9th of May, 1848.

Recent circumstances have attached a deep interest to such cases, and have shown, that but few Medical men have had opportunities of witnessing the action of strychnia, as a poison, on the human body. The publication of the case may, therefore, perhaps be useful.

On the 8th of May, 1848, I received a pressing message from Mr. Atkinson, Surgeon, of Lower Gardiner-street, to meet him in immediate consultation in the case of a Mr. D., aged 65, who was seized with a sudden, severe, and extraordinary attack of illness. I had previously known the patient, who was a ruddy, healthy-looking man, and on my seeing him on this occasion, I was struck with his altered aspect, his pale and sunken look.

I found him lying on his back, stretched on the floor of his front parlour; dressed as he had been, when two hours before in perfect health he had sat down to breakfast. On my entrance into the room, he at once said that he did not now require or wish for Medical aid, that he felt he was dying, and that nothing could be of the least use to him. He spoke in a very low voice, which was somewhat indistinct, not only from his weakness, but from the frequent interruptions his utterance was subjected to from the violent jerks his whole frame suffered from tetanic spasms. On these occasions, I observed, as he lay on the floor before me, that his head became suddenly and convulsively retracted or drawn back. The spasms were violent, and seemed to cause him great pain, as expressed by the varied contortions of his features. The prevailing form of spasm now affecting the trunk seemed to me exactly that which is called the opisthotonos of tetanus (that is to say, a general spasm of the muscles, in which the head and heels are retracted, and the body thrown into an arch, the abdomen being projected forwards.)

This resembled tetanus also in the circumstance that all the muscles felt remarkably rigid, not only during the actual spasms, but also during the intervals between them.

The spasms would not come on regularly and spontaneously, but during the short intervals which occurred between them, the slightest touch on the surface would reproduce them before the moment of their recurrence had arrived. His surface was cold and he was nearly pulseless; his attention seemed altogether absorbed by the severe and repeated jerks his body suffered. All this time he was in perfect possession of his intellectual faculties, he immediately recognised any one entering the room, and in reply to questions, answered correctly part of a sentence, then a painful spasm would supervene and intercept his words.

Upon inquiry as to the cause of all these symptoms, I learned that when Mr. D. sat down to breakfast that morning, he was observed taking from his waistcoat pocket a paper containing a white powder, that he placed the powder between two slices of ham, some of which he swallowed, that for an hour subsequently he seemed to suffer no uneasiness whatsoever, but his wife having observed a peculiarity in his manner, and having some undefined fears about him, sent for Mr. Atkinson, who on his arrival at eleven o'clock (half-an-hour after he had taken the powder and ham), saw nothing in his symptoms to lead to the suspicion of Mr. D. having taken poison, and was told nothing of the matter. In another half hour, however, Mr. Atkinson was a second time sent for, and found him in the alarming state above described.

As to the first symptoms of poisoning having commenced, it was stated by a female servant that Mr. D. was alone in the front parlour, and that, hearing a loud moan proceed from the room, she instantly ran in, and found her master sitting on the sofa, moaning and complaining of great pain (a).

It was now soon collected from Mr. D. that he had taken poison, with the determined intention of self-destruction. He said that he had made an appointment for an hour that day to pay over to a creditor the sum of £2000 he owed him; that he saw no prospect of being able to procure this sum, and therefore it was that he had taken the fatal step. Upon being asked the nature of the poison he had taken, all he said was, that it was a white powder, the name of which he did not then remember, but he referred us to Mr. Allen, of Mary-street, where he procured it. From the peculiarity of the symptoms, we had no doubt but that the powder in question was strychnia, and in a very short time this was ascertained to be the fact. On application to the highly-respectable house in Mary-street, we were informed by Mr. Richard Allen that an elderly gentleman, with whose name he was unacquainted, but who had heretofore occasionally purchased drugs in the shop, had, on the previous Saturday evening, applied to him for some prussic acid to poison four couple of hounds; upon which Mr. R. Allen informed him that strychnia was the suitable drug for such a purpose; that he handed him 20 grains of this powder in a paper labelled poison for dogs; that the old gentleman then put the paper into his pocket and left the shop. This was all Mr. Allen knew of the matter, until informed by us of this gentleman having swallowed the powder he had sold him. The nature of the case being no longer doubtful, we were not, however, thereby better enabled to relieve the unfortunate sufferer; we knew of no antidote; and all I felt I could do, was to join my entreaties to those of Surgeons Nixon and Atkinson, that he would permit us even to make an effort to relieve him, and that he should take immediately an emetic. This he at first resolutely refused, saying that it was totally useless, and that he could not swallow anything. At length he yielded, and with some apparent difficulty he swallowed 40 grains of ipecacuanha powder, which had been mixed in some warm water; but no vomiting ensued. We next urged him to submit to the introduction of the tube of the stomach-pump, with a view, if possible, to remove the poison from the stomach; this he positively refused to submit to; and while arguing with him as to this point a violent and general epileptic convulsion seized him, which lasted about ten minutes. During this attack his face was congested, and his features were violently distorted. There was evidently complete loss of consciousness, as in ordinary epilepsy. This paroxysm now subsided altogether, and was almost immediately succeeded by a new state of things. His face again became remarkably wan and pale, and his countenance suddenly assumed a strange and smiling expression; his lips were closed and compressed, his respiration seemed momentarily arrested while he lay on his back; his arms and forearms were elevated and rigidly projected forwards, while his wrist-joints were even gracefully flexed, and the index fingers of both hands were pointed towards, and almost in contact with, each other.

While we were standing round, silently observing him in this cataleptic spasm for some moments, his upper extremities fell suddenly down on his chest, and he was dead.

Thus, we find that the first symptoms announced by painful spasms, accompanied with loud moanings, did not commence for the space of one hour after the poison had been swallowed; that about this time, that is to say at half-past 11 the characteristic marks of poisoning by strychnia were observed; that these were followed by a well-marked epileptic convulsion; and that, finally, he presented a decidedly cataleptic condition of the upper extremities before death closed the painful struggle.

Although in this case no post-mortem examination was made, that a large dose of strychnia was the cause of death cannot be doubted,—the unhappy sufferer confessed that he had taken poison with a view to self-destruction, stated his motive for the act, and referred us to the person from whom

(a) This is the deposition of the cook at the inquest, held on the 9th of May.

he purchased the white powder. This gentleman, as already mentioned, stated that the white powder was strychnia, and confirmed all that Mr. D. had said as to the purchase of this poison from him, which he again repeated at the coroner's inquest held on the body of Mr. D. on the 9th of May. All the circumstances, therefore, independently of the characteristic symptoms and death, place the matter beyond a doubt that the case was one of poisoning by strychnia.

It may be observed, that although the symptoms in this case were decidedly referrible to strychnia, acting as a poison, some of them for a time greatly resembled those which belong to ordinary tetanus. They resembled this disease not only in the spasmodic jerks and sudden retraction of the head, and general opisthotonos of the whole frame, but also in the circumstance, that during the intervals between each tetanic spasm, the muscles still preserved their rigidity. This last circumstance is the more deserving of observation, for it has heretofore been considered, that this spastic rigidity of the muscles still remaining after the actual paroxysm was over, was a phenomenon only to be seen in cases of true tetanus, and was set down as its pathognomonic sign. Indeed, the late Mr. Abraham Colles, who was a Surgeon of immense hospital experience, and besides was known to have paid especial attention to the phenomena which ordinary tetanus presented, has observed, "There are diseases which bear some resemblance to a paroxysm of tetanus, but none in which the muscles, as in this, remain firm as a board after the paroxysm." This observation of Mr. Colles is still true if it be limited to disease alone; but it is right that it should be known, that, in the case of poisoning by strychnia (as exemplified by the case of Mr. D., which I have prefixed to these observations), this rigidity of the muscles, during the intervals between the paroxysms, equally exists in the tetanus of strychnia, and in ordinary tetanus.

Having thus dwelt on some of the points of resemblance between each other of ordinary tetanus and that produced by strychnia, let us now enter into some detail to demonstrate the difference which may be shown to exist between these two affections. The rapidity with which strychnia produces its fatal effects one might suppose should be sufficient in itself in most instances to betray the true nature of the case, and to render the likelihood of strychnia tetanus being confounded with ordinary tetanus extremely remote. However, in the two cases of strychnia poisoning which lately occupied so much of public attention, it would appear that poisoning was not effected by the exhibition of one large dose of the drug at once, but that its baneful influence was kept up by the repeated administration of small doses. The same practice may hereafter be repeated, so that it is important that we should look to other means of diagnosis, and of unraveling the true nature of the case, than to the rapidity or slowness in the course of the several symptoms. It is to be recollected that, although ordinary tetanus has its short paroxysms and intervals; this disease, once commenced, ever observes a continuous course, the regularity of which cannot be simulated by any successive and sustained effects, producible by the administration of strychnia as a poison. Upon this point we shall find, I imagine, most medical men agreeing with Sir Benjamin Brodie, who stated that he never knew the symptoms of ordinary tetanus last for a few moments, then subside, and then commence again after twenty-four hours.

The diagnosis between ordinary tetanus and that form produced by strychnia should, in my opinion, be more readily found by looking to the expression of the countenance, than to any other single phenomenon. This expression is admitted by all to be most peculiar, and that once looked upon with attention it cannot be forgotten. The forehead is wrinkled transversely and in the perpendicular direction, the eye-brows being drawn in a remarkable manner towards each other; the eyes are not fully opened; the nostrils are more or less dilated; the angles of the mouth are drawn backwards and a little upwards. These characteristic marks become momentarily exaggerated at every paroxysm.

Mr. Colles in his lectures (b), delivered at the College of Surgeons, used to say:—"There is no disease which has been so often confounded with others as tetanus, although the symptoms are so well marked. For my own part, I think the countenance would in every case be sufficient to distinguish it from all others. I never saw but one description of face, one tetanic expression of countenance; it is the same in all cases; it is the first symptom which gives the alarm, and the last to depart; even when the patient recovers, and is able to go about his business, that tetanic face remains. I believe it never leaves him."

I have already stated that the eyes are not fully open. Now, this half-shut state of the eye-lids gives to the eyes a look which I find, in the language of our school, is called "the peering look of the eyes in tetanus."

It does not appear that in any of the cases of strychnia tetanus yet adduced, the true tetanic expression has been noticed to have been present. It certainly did not at all exist in the case of Mr. D. prefixed to these remarks. In the case of Cook, one of the medical witnesses in attendance (Mr. Jones) stated he did not observe anything peculiar in the countenance, observing, however, that the room was dark. It is plain, nevertheless, that Cook could not have had the "peering eye" of tetanus, for the second witness examined observed, that "the eyes were wild-looking, standing a great way out of the head," and the third observed that "the balls of the eyes projected very much" (c).

If also we look to the order of invasion of the several symptoms, we may find in this a means of diagnosis between ordinary tetanus and the results of strychnia acting as a poison. In the case of Mr. Cook, one of the witnesses stated, "I heard violent screams from the deceased's bed-room, and on entering it I saw the deceased sitting up in bed; at this time he was beating the bed-clothes apparently in great agony, he told me that he could not lie down, but should be suffocated if he did, there was a sort of jumping or jerking about his head, neck, and body all this time, and his breathing was very much affected. He screamed three or four times; he asked me to rub one of his hands and I found it quite stiff, it was the left hand, the fingers were all stretched out, and there was no motion in them, and they twitched while I was rubbing the hand."

While it appears that it is common for the symptoms of poisoning by strychnia to announce themselves by the patient moaning, or screaming loudly, such a commencement for ordinary tetanus, I believe, has never yet been observed, no matter how acute the disease.

Among the cases of poisoning by strychnia already brought before the public, besides that of Cook, which we learn from many witnesses began by screaming, we can also refer to that lately communicated by Dr. Geoheegan, which is that of a gentleman, aged 26, who, in a fit of despondency, swallowed five grains of strychnia; in about a quarter of an hour after the time it was supposed he had swallowed the poison, he was heard moaning by a person in a neighbouring apartment, who, on entering the room, found him lying on his back in bed, his hands clenched, his forearm flexed, one leg extended, and the other in the act of being so, as if in a convulsion, and the head drawn backwards (d). Mr. Hyndman, the city coroner, kindly showed me his memoranda on this case, and from this we learn that Mr. B.'s moans were heard by persons below stairs as well as above, and that they were so loud that one of the witnesses looked out of the window, considering they had come from the street.

The ushering in of the symptoms of an over-dose of strychnia by screaming, is also noticed to have occurred in the Romsey as well as in the Leeds case, indeed I know of no case in which this moaning, as a first sign of poisoning by strychnia, was absent. Is such a commencement as this like to what occurs in ordinary tetanus? I am sure to be answered in the negative by any one who has seen much of the disease. "In some cases," says Mr. Colles, "you will read of cases called tetanus, you are told that the patient's screams could be heard three streets off. Now I ask any one who ever saw a tetanic patient, if he ever heard a cry from such a patient which could be heard outside the door of the room he was in.—I know I never did."

Finally, in following the order of invasion of symptoms as they successively occur in cases of poisoning by strychnia, when there is time to observe them as in P. Cook's case, we find

(b) Lectures on the Theory and Practice of Surgery, by the late Ab. Colles, thirty-four years Professor of Surgery to the College of Surgeons in Ireland. Edited by S. McCoy, F.R.C.S.I.—Dublin, reprinted from *Medical Press*.

(c) Illustrated and unabridged edition of the Report of the Trial of William Palmer for poisoning John P. Cook. London: Ward and Lock, pages 26 and 33.

(d) See an able article by Dr. Geoheegan, of Dublin, *Dublin Medical Press*, June, 1856, on Poisoning by Strychnia.

the upper extremities very early affected, while the upper extremities are the very last parts which become implicated in ordinary tetanus. Now in this last mentioned disease the masseter muscles are first felt rigid, then the muscles about the fauces, and then those at the back of the neck, and from them, says Mr. Colles, the hardness descends to the muscles of the trunk, abdomen, and lower extremities. It is a curious fact, that the muscles of the fingers are the last and least affected of all others." *Loc. cit.* Thus the experience of most practical Surgeons agrees with that of Sir Benjamin Brodie, who, in his testimony in reference to Cook's case, said :—"I do not myself recollect any case of ordinary tetanus in which occurred that contraction of the hand, which I understand was stated to have taken place in this instance." And Baron Boyer, one of the most experienced and able Surgeons of the French School, after having described, in his work on Surgery, the order in which the muscles become successively engaged by the spasms of ordinary tetanus from the head to the foot, adds, that the muscles of the upper extremities also, which hitherto had remained unaffected, at last participate in the general rigidity, "excepté les doigts qui souvent conservent jusqu'à la fin leur mobilité," and such, we believe, will be the testimony of every Hospital Surgeon who has seen much of tetanus.

From the preceding observations we may, I think, draw the following conclusions :—

1. Strychnia tetanus resembles ordinary tetanus in its spasms, particularly when they assume, as they frequently do, the form of opisthotonos.
2. A rigid condition of the muscles exists in both cases, not only during the actual paroxysms, but also during the intervals between them.
3. Strychnia tetanus, in its progress to a fatal result, is much more rapid in its course than ordinary tetanus.
4. The commencement of this last is silent, and the expression of the countenance is peculiar and characteristic.
5. The beginning of the former is announced by loud and repeated screams and moanings.
6. The hands in strychnia tetanus are early and severely affected; in ordinary tetanus the hands are the part of all others the last and least affected.

PISTOL-SHOT WOUND — EXTRACTION OF THE BALL FROM THE CAVITY OF THE CRANIUM—PERFECT RECOVERY.

By JAMES LONG, Esq., Liverpool.

In December, 1851, I was sent for to see a man who had shot himself with a holster-pistol. When I saw him I found him perfectly conscious, and should not have known that any thing had happened to him had I not been told. He was in bed, but got on his knees and made water; he declined talking, because, as he said, it hurt him to do so; he complained of phlegm in his throat, which, when ejected, was tinged with blood. On examination I found the right whisker singed; and just below the angle of the jaw on the same side I discovered a small, dark, inverted wound, immediately behind which the carotid artery could be felt violently pulsating. On the left temple, just behind the external angular process of the frontal bone, a puffy swelling existed; this had been cut into by a Surgeon before my arrival. He found the skull fractured, and that a probe could be introduced behind the zygoma, and its point be felt under the mucous membrane of the mouth above the sound molar tooth of the upper jaw. I enlarged the wound, and found a large fissure in the skull, half-an-inch behind the external angular process of the frontal bone, extending perpendicularly downwards beneath the zygoma; the edges were rough and bulged slightly outwards, as if torn open by a force from within; there was no comminution. At the widest part of the fissure I introduced my little finger to the depth of half-an-inch, and felt the dura mater, and also the ball lying between the dura mater and bone. With the curved end of a probe I raised the ball and extracted it easily through the fissure, with a pair of dressing forceps; the dura mater, though detached to a considerable extent, was uninjured; the ball, which was of a small size, was not altered in form. The wound was dressed with lint and warm water. He had a quiet night. On the following day, 24 hours after the occurrence, the pulse was 64, and slightly intermittent; he could hear and see equally well on both sides; had no pain in his head; complained only of a slight throbbing sensation; intellect clear; could not open his mouth more than a quarter of an inch; expectorated from time to time some mucus from the throat, but no blood. Got upon his knees to pass water.

On the second day after the occurrence, the pulse was 80; he had passed a somewhat restless night; the head was hot, the secretion of mucus in the throat very troublesome; the wound in the neck discharged a fetid pus, that on the temple was perfectly quiet; but there was inability still to open the mouth more than a quarter of an inch. Ordered, a calomel and jalap purge.

On the fourth day he expectorated a considerable quantity of healthy-looking pus; could open his mouth rather more; no pain in the head except when he coughed or expectorated, and then it was of a tensive character. Pulse 84. The wound on the right side of the neck was closed; there was neither fulness nor pain there; the wound on the left side was dressed, and was perfectly healthy, but the neck on this side below the angle of the jaw was tense, red, and painful. He sat up on the fifth day. The pulse was 88, and the pus expectorated was streaked with blood.

On the seventh day the wound in the neck re-opened, and discharged some fetid pus. This was accompanied by some small bits of paper, which had been used as wadding. The temple wound was suppurating healthily. The discharge from the throat was much diminished, and he was able to take food more easily. On the tenth day I discontinued attending him, as all was progressing most favourably; at this time he could only open his mouth to such an extent as to admit the little finger. Three weeks afterwards I again saw him. The wound in the neck was quite closed; but he informed me that several bits of wadding had been discharged from it. The wound on the temple was quite closed. There was a spot, very tender on pressure, on the ramus of the jaw, just below the sigmoid notch. He could open his mouth, so that, for the first time, I got a view of his throat, and could discover nothing unusual, except that the arch of the palate on the left side was cleft to the extent of about the fourth of an inch. I have seen him several times since; the last time was in May of the present year. There was nothing to indicate so serious an injury, except the scar in the temple, the fissure of the palate, and an indentation in the neck.

I was at first much puzzled to account for so serious an occurrence producing such trifling results, and could not conceive how the ball could pass through the base of the skull, as I at first thought it had, and lodge in the locality where it was found without producing serious injury to the nerves traversing the base, or injury to the brain itself. On re-examining the case, I conclude, from the direction which the probe in the first instance took, from the pain and inability to open the mouth, from the fulness which took place on the left side of the neck, which was relieved by discharge of pus from the throat, from the fissure of the palate on the left side, and from the tender spot on the jaw below the sigmoid notch, that the course of the ball must have been this :—avoiding the vessels and nerves below the angle of the jaw, it passed behind the pharynx, then passed through it, cleaving the palatine arch, was arrested by the ramus of the jaw, passed upwards through the great wing of the sphenoid bone, immediately exterior to the external pterygoid plate, coursed between the dura mater and bone, struck against the strong inner surface of the frontal bone, corresponding to the external angular process, split up the bone, and, being spent, dropped to the lower angle of the fissure which it had in its last effort produced.

The above case occurred in private practice; but as I have seen the person recently, and in perfect health, you may, perhaps, think it worth recording, as adding another to the many recorded cases of the eccentric course of balls.

July, 1856.

ON THE MORTALITY OF THE METROPOLIS.

By J. J. FOX, Esq.

VI. *Mortality of the Spring.*

The mortality of the Metropolis in the thirteen weeks ending June 28, 1856, is in the proportion of 540 deaths to every 100,000 of the population. The average of the same quarter in the previous nine years is 561; this spring, therefore, shows

a mortality about 4 per cent. below the average of the previous nine years.

The extremes of mortality in the spring quarter are tolerably far apart, though not so much so as in the winter. In 1850, the spring mortality was at a minimum, being as low as 485; it attained the maximum in 1854, being 603. The difference between these numbers is 118, which is 21 per cent. of the average mortality, while the difference between the extremes of mortality in winter is 218, being as much as 32 per cent. of the average mortality. We may thus infer, from the experience of ten years, that the difference between a healthy winter and an unhealthy one is very much greater, both actually and proportionally, than the difference between a healthy and an unhealthy spring.

VII. *Distribution of the Spring Mortality among the various diseases.*

We have seen that the total mortality of this spring was about 4 per cent. below the average of the season. Let us now, as in the former paper, class the various diseases constituting the total mortality into three groups.

In the first, we will place those diseases of which the mortality was above the average of the same season in former years. Teething was 1 per cent. above the average; the class containing diseases of the kidneys, 2 per cent.; bronchitis, 5½ per cent.; the class containing diseases of the heart, 7 per cent.; typhus, 16½ per cent.; measles, 22½ per cent.; while croup reached the height of 67 per cent.

In the second group, we will place those diseases the mortality of which was less than the average of the same season in former years, but not so much below the average as the total mortality; that is to say, although, in proportion to the population, they are rather less prevalent than usual, yet they are rather more so than usual in proportion to the deaths from other causes. We find that debility from premature birth, etc., was 1 per cent. below the average; the class containing dropsy, cancer, and diseases of uncertain seat, 1½ per cent.; apoplexy, 2½ per cent.; paralysis, 3½ per cent.; and pneumonia, 3½ per cent.

The mortality from consumption, that from diseases of the respiratory organs, and that from diseases of the nervous system, were each about 4 per cent. below the average, thus partaking, in the same degree as the total mortality, of the sanitary influences of the season. In the third group we place those diseases the mortality from which was, not only less than the average, but differed from the average by a larger per centage than the total mortality; that is, were more affected by sanitary influences than other diseases. Diseases of the digestive organs were 6 per cent. below the average; zymotic diseases, 7 per cent.; diseases of the joints and bones, including rheumatism and rheumatic fever, 8 per cent.; hydrocephalus, cephalitis, and convulsions, 12½ per cent.; hooping-cough, 13½ per cent.; scarlatina, 19 per cent.; erysipelas, 22½ per cent; diarrhœa 29 per cent.; and small-pox, 38 per cent.

VIII. *Comparison of the Spring Mortality with that of the preceding Winter.*

If we compare this arrangement of diseases with the arrangement that resulted from applying a similar method to the mortality of last winter, we are able to see at a glance what may be termed the "march" of diseases. If we compared simply the deaths, or even the mortality, from any particular disease, it is evident that the comparison between winter and spring would not afford any satisfactory result. But when we take the ratio of the mortality to former years, its excess above, or defect below, the average of the same season, then we have, to a great extent, eliminated the general influence of winter or of spring, and the resulting numbers are fairly comparable as denoting an increase or decrease in the prevalence of any particular disease.

In the case before us, there are some diseases of which the ratio of the mortality to the average was about the same in the past winter and spring; these are hooping-cough, scarlatina, and the class of diseases of the kidneys. In three others, there is improvement — a considerable diminution in the ratio of the mortality—crysipelas, small-pox, and the class of rheumatic diseases.

In all the other diseases to which our examination has extended, the ratio of the mortality to the average has increased, *i. e.*, independent of the ordinary influence of the season of the year, they have become more fatal.

In some, this increase has been very large, for instance, in bronchitis, pneumonia and respiratory diseases generally, in measles, and in croup. It must, however, be borne in mind that these are the results of comparing the ratios that the mortalities bear to the average in each season, not of comparing the number of deaths. For example, the deaths from croup were, in the winter 150, in the spring 157; but the first was 36 per cent. above the average of previous winters, while the second was as much as 67 per cent. above the average of previous springs. Again, the deaths from bronchitis were, in the winter, 1461, in the spring, 1027, presenting, as might be expected, a large diminution; but the first was 18½ per cent. below the average of previous winters, while the second was 5½ per cent. above that of previous springs; correctly considered, therefore, bronchitis should be regarded as having become greatly more prevalent in the spring.

So with regard to the total mortality: that of the winter was 560 in the 100,000, while that of the spring was only 540; it would not be fair, however, to regard the public health as in a better state in the latter than in the former season; for the first, as we have seen, was a particularly healthy season, being 16½ per cent. below the average of previous winters, while the second was only 4 per cent. below the average of previous springs; relatively considered, then, the spring has been a less healthy season than the winter.

IX. *Atmospheric State of the Spring.*

The mean temperature of the season was below the average of the last nine springs; and, although it was only about a degree and a-half below the average, yet so small has been the variation of mean temperature of the springs in these years, that it is the lowest of them, with the exception of last year, 1855. The range of the barometer was much less than that of the winter season; its mean reading was much lower than the average of former springs—indeed, it was lower than any of the previous nine.

The amount of rain was as much as two inches above the average, which is a considerable amount; although so large an amount fell, there were not more rainy days than the average of the season; the principal fall was in May.

April was rather warm, and not very rainy.

May was exceedingly cold, windy, and wet.

June was unsettled; the weeks being alternately above and below the average mean temperature.

X. *Relative Mortality of Divisions of the Metropolis.*

The deaths in the whole of the metropolis were at the rate of 540 in the population of 100,000—a rate which is about 4 per cent. (more correctly 3·8 per cent.) below the average mortality of the season.

In the central group of districts the mortality was highest, amounting to 570; in the southern districts it was 549. The other divisions show a mortality less than that of the entire metropolis; in the western it was 536, the eastern 529, and in the northern 519.

In comparing this list with the arrangement, according to mortality, in the winter of this year (see preceding paper), one is struck with the following facts: that in each case the northern districts are the lowest in the scale; that in each the western are below the average of the metropolis, and the central above; that the excess of the central districts above the average is greater in the spring than it was in the winter; that the southern districts have relatively increased in mortality, being above instead of below, the average of the metropolis; and, lastly, the striking fact, that the eastern districts, instead of being a maximum, considerably above the average, are now below it, and stand next to the lowest in the scale. Disease has, therefore, prevailed more in the southern and central districts, and subsided in the east.

These changes are shown in another form, by comparing the deaths with the average of the previous ten years in each division. In every division they are below the average; but, in the central, they are only half per cent. below it; in the western, they are 2 per cent.; in the northern 3½. All these differ from the average by a less per centage than the mortality of the entire metropolis. The others are still lower; the southern districts are 6½ per cent. below the average, and the eastern as much as 8 per cent. These figures confirm the previous conclusions, showing that the mortality of the central and eastern districts are not merely high and low respectively, when compared with the winter, but the same, compared with the average of former springs; and they show

that the southern districts, although producing a larger proportion of the total mortality than they did in the winter, are still considerably below the average of the season.

I have now gone through the principal points that occur to me in the examination of the mortality of London, during the two quarters that have just elapsed. It would be interesting to make a more minute analysis of the mortality, to show, as far as it can be approximately done, its course, and the course of its component parts, during the six months of the period. Taking, for instance, the diseases that have prevailed, such as croup, measles, and typhus, or the diseases that have been much below the average, diarrhœa, erysipelas, and scarlatina; to examine in what months their prevalence, or their paucity, reached its maximum, so as to be able to form some probable conjectures, either as to the laws of their prevalence, or the circumstances that, in this season, have influenced it.

These considerations would, however, lead too far to be entered on at present, and I will defer them to another opportunity.

Stoke Newington.

DROPSY OF THE AMNION.

By RICHARD NEALE, M.D. Lond.,
Formerly Senior Physician's Assistant, University College Hospital.

The cases of dropsy of the amnion reported by Messrs. Debenham and Gramshaw in the *Medical Times and Gazette* for May 17th and August 2nd respectively, recall to my mind an interesting case of a similar nature that occurred in my own practice early in 1854. When residing in Worcestershire, I was called to attend Mrs. S. who was 7 or 8 months advanced in pregnancy. She was suffering from extreme discomfort in breathing, and almost total incapacity for any exertion, due to excessive accumulation of fluid in the abdomen, which was diagnosed at the time as dropsy of the amnion. There was general anasarca of the whole body, from the eyes to the feet, and ascites to some extent. The urinary secretion was almost suppressed—not exceeding two to four ounces daily—highly albuminous, but not exhibiting any casts under the microscope.

As, with the exception of physical discomfort, there were no urgent symptoms, rest, with mild diaphoretics and diuretics, with limited supplies of fluid, were alone employed, and gestation proceeded to its full period.

When labour commenced, the aspect of the patient was that of one in an advanced stage of albuminuria; the eyes were almost closed from the extensive œdema; there had been for a few days a constant cephalalgia and dimness of vision, locomotion was entirely precluded, and the abdomen was so greatly distended, as to give the walls the appearance of a tense membrane through which fluctuation could be most readily seen, as well as felt.

Examination per vaginam showed that the os was fully dilated and the head of the fœtus had entered the brim, a small bag or membrane protruding into the vagina, which, when punctured, gave issue to a moderate amount of liquor amnii, leading me at first to doubt my original diagnosis; however, labour steadily but slowly advanced, the head descended, but firm pressure over the womb showed but little diminution of volume; immediately, however, that the head freed itself from the brim, which it had previously made "water-tight," the abdomen diminished more rapidly than my hand could follow at the moment, and so powerfully did the uterus contract, that the immense volume of liquor amnii was ejected to a distance of three or four feet, clearing the bed and bed-clothes, and flooding the room, so much that mops, buckets, and cloths of all kinds were called into requisition to prevent the ceiling of the room below from being spoiled. The amount was roughly judged to be at least equal to three or four gallons.

The child, a full-grown, lively, but remarkably sodden infant, was projected to a distance from the vulva by the rush of waters; and the mother, fancying that something was wrong, raised herself in bed, which naturally tended to increase the embarrassment of the heart's action, consequent upon the sudden removal of so great an amount of pressure upon the larger blood-vessels. A moderate quantity of stimulant speedily restored the patient; and, upon further examination, the uterus was found fully contracted, although very large, the placenta in the external passages, and no more hæmorrhage going on than is usual after natural delivery. The patient recovered without an unfavourable symptom; the urinary secretion was restored a few hours after parturition; and, after a few days, the ascites and general œdema totally disappeared.

I omitted to state that the patient had previously given birth to several children, and that the labours had not been marked by any peculiarities.

I will not occupy more valuable space by comment upon the case in connexion with the two other cases previously reported, although it presents, as well as they, many points of practical interest.

Ventnor, August 2, 1856.

CASE OF GANGRENE OF BOTH LEGS FROM COLD—AMPUTATION—RECOVERY.

By R. HALL BAKEWELL, M.D. St. Andrew's, M.R.C.S., Eng. &c.

James Frith, Private, 23rd Regiment, aged 29, admitted into the Purton Union Workhouse under my care March 18th, 1856.

History.—Went out to the Crimea in January, 1855; enjoyed good health until the summer, with the exception of an attack of diarrhœa. In the summer was attacked by fever with delirium, for which, in September last, he was invalided home.

Six weeks ago, having indulged too freely in drink, he deserted from his Regimental Depôt at Winchester, intending to proceed to his home in Westmoreland. By some extraordinary mischance, after wandering about ever since half-starved, and lying in the fields at night, he reached this county (Wilts). The day before his admission, he found his feet so bad that he was unable to proceed, but he had walked upwards of a mile before he gave up the attempt.

March 18.—Was admitted. Countenance anxious and haggard, pulse weak and fluttering. Complete mortification of both feet and legs, to a distance of four or five inches above the ankles. No sensation in the feet, but great pain and tenderness just above the mortified parts. There is no distinct line of demarcation formed, but yet the transition between the sphacelated portions and the living parts is abrupt. He was ordered hot broth, wine, etc., immediately. Warm fomentations to be applied round the legs. When admitted he could walk, though with pain, referred to the parts not mortified.

7 p.m.—The gangrene is not spreading; feels comfortable.

19th.—There is this morning a distinct line of demarcation formed. Has had a good night; pulse firmer and better; appetite good; less pain in the legs, less tension and redness above the line of demarcation. Cat. lini. amplum cruribus.

Cont. Wine and broth; morph. hydrochlor. gr. ¼ omni nocte horâ somni sumend.

20th.—Much the same.

21st.—Not so well; says the legs are very painful; has had a restless night; pulse small and quick, and more frequent. It was evident that the sphacelated limbs, acting as foreign bodies, were exciting great irritation, and it was apparent that the time had come when amputation was necessary.

I requested the presence of several Professional friends, but was disappointed of all but one, Mr. Taylor of Cricklade. This lack of professional assistance caused much difficulty during the operation.

22nd.—Having placed him fully under the influence of chloroform, I performed the double flap operation on the right leg. There was considerable hæmorrhage, but not more than, if so much as, is usual. He bore it very well. He was allowed to recover from the effects of the chloroform, some wine was given him; chloroform was again administered, and I proceeded to remove the left leg. By the simple expedient of elevating the limb for a few minutes previous to the application of the tourniquet, much less blood was lost than in the first operation, certainly not more than a couple of ounces followed the use of the knife. He was kept well under the influence of chloroform, until the flaps were stitched up. He was then allowed to recover, expressed himself as very comfortable, and asked for a pipe!

Some more wine was given him; his pulse was full and

soft, but never flagged during the operations. In about an hour after the operation, I applied strapping in the intervals between the stitches, and water dressing over this. Tinct. opii. ʒss. statim, et post horam si opus sit.

Vespere.—Had a comfortable sleep after the second dose of laudanum. Feels very easy. Has had some toast and tea, besides broth.

It would be only tedious to detail the daily progress. With two exceptions not a bad symptom occurred, and these two did not affect the general health. About ten days after the operation, when I was beginning to hope that the danger was nearly over, he complained that he could not open his mouth, when I asked to look at his tongue. On examining the jaw, I could find no swelling nor tenderness; the masseters seemed rigid, and that was all. This very alarming symptom, however, never led to anything worse, and hoping it might be only rheumatic, I gave him some Dover's powder, and ordered hot fomentations to the jaws; this gave a little relief, but for more than a week he was unable to take solid food.

The other circumstance took place in the third week after the operation. One morning, I found both stumps enormously swollen, the right particularly. There was no pain, nor any other inflammatory symptom, there had been no rigors, nor did his health seem at all affected. Large poultices were applied over the whole of the stumps, and all other dressings relinquished for a time. After this, regulated pressure by bandaging was applied. The healing of the stumps was much delayed by this.

I am wholly at a loss to what to attribute this œdema, thus attacking both stumps at once. It was certainly not inflammatory, and evidently depended upon some obstruction, either temporary or otherwise to the return of blood. It might have been adhesive phlebitis, or it might have depended upon the position in which the stumps had been placed.

I have notes of a precisely similar swelling of a stump, but as, in that case, I had to tie the common femoral in consequence of secondary hæmorrhage, (the artery on the face of the stump was so rotten that it would not hold a ligature,) I ascribed the œdema to adhesive phlebitis of the femoral vein, occasioned by some injury to its coats when tying the artery.

With these exceptions the man did extremely well, and was discharged in the middle of May, with both stumps perfectly healed. He was able to bear his weight on them for a short time.

Remarks.—The above case presents two or three features of considerable interest. Gangrene from cold, occurring to the extent it did in this man, is very rare in this country. The gangrene must have spread very rapidly, as he was able to walk a mile the day before his admission. It was curious to see him stand and walk on feet that were completely dead; indeed, I had to stick a knife into his ankles to show him that they were mortified.

There were two evils to guard against during the operation: one was shock, the other hæmorrhage. The shock I endeavoured, and successfully, to prevent, by keeping up the influence of chloroform during the whole of the operations, including the tying of arteries, inserting stitches, etc. There were a very large number of arteries to tie. The hæmorrhage was not so great as to occasion any uneasiness. I cannot but think that so serious an injury to the body, as the almost simultaneous removal of both legs, would have occasioned shock, had it not been for the chloroform; but not having at hand any accounts of double amputation, I am unable to say whether death has resulted, in other cases, from this cause.

Purton, Wiltshire.

Deaths in Public Institutions for the Week ending August 9:—

	Males.	Females.	Total.
Workhouses	39	71	110
Prisons	1	1	2
Military and Naval Asylums ..	9	..	9
General Hospitals	23	18	41
Hospitals for Special Diseases ..	8	6	14
Lying-in Hospitals	1	..	1
Military and Naval Hospitals ..	3	..	3
Hospitals for Foreigners, etc. ..	2	..	2
Lunatic Asylums	1	3	4
Total	87	99	186

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

REDUCTION OF A DISLOCATED FEMUR BY MANIPULAR MOVEMENTS ONLY, THREE WEEKS AFTER THE ACCIDENT.

(Under the care of Mr. WORMALD.)

The following is a good illustration of the efficiency of the the manipular method in the reduction of dislocations of the hip. The case has also several other points of interest.

R. E., aged 44, a tall and muscular man, by trade a painter, consulted Mr. Wormald, at his own residence, on July 15. He had that morning walked from his own home, a distance of nearly a mile. He stated that three weeks before he had fallen off a wall a height of fifteen feet, and had been lame in his hip ever since. At the time of the accident he was quite unable to stand, and was carried home to bed, where his hip was examined by a Surgeon, who assured him that it was only sprained. He laid in bed ten days, with the exception of getting up each day to have his bed made. On the eleventh day he got up, and, with the help of a stick, walked downstairs and up again. Since then he had been up daily, and had walked about, but still continued lame. Under these circumstances he now sought further advice. Having had him stripped, Mr. Wormald examined the part, and at once detected a dislocation into the thyroid foramen, the symptoms of which were very well marked. He advised the man to go into the Hospital. On the following day (the 25th after the accident,) reduction was effected in the following manner. The patient, under the influence of chloroform, was laid on his back on a table, a towel for counter-extension being passed round the inside of the hip. The operator then standing in front of the patient, placed the front of the knee of the affected limb in his own axilla, passing his right arm under the thigh from within outwards. With the left hand he then grasped firmly the upper part of the displaced bone, at the same time taking his left wrist in his right hand. In this manner, the thigh was firmly held, easily managed, and great force in rotating it and directing its movements could be applied.(a) Mr. Wormald now bending the thigh on the pelvis accomplished a rotatory movement outwards. The first few attempts had the effect only of breaking down adhesions, and loosening the bone. Complete reduction was, however, after a short time (about 10 minutes) effected, the slipping of the head of bone into its socket being attended by a snap distinctly felt by the operator. The symmetry of the two sides was perfectly restored.

In commenting on this case, Mr. Wormald mentioned one treated by himself some years ago, in which, after a failure in the attempt to reduce by pulleys, he succeeded by the plan just described. The patient was a very muscular man, aged 22, and the bone had been out of place six weeks. The dislocation had originally been on to the ilium but in the attempt with pulleys, the head of the bone had been thrown into the ischiatic notch, from which all the force that could be applied by them had failed to remove it.

GUY'S AND ST. BARTHOLOMEW'S HOSPITALS.

NOTES ON THE DIAGNOSIS OF DISLOCATIONS OF THE FEMUR.

In the case above given, Mr. Wormald pointed out to the students present a sign of dislocation of which no mention is, we believe, made in books. On looking at the limb from the side, the front outline of the thigh (the belly of the rectus) was

(a) We have been thus precise in describing the manner of holding the limb because it is a point to which Mr. Wormald attaches much importance. We believe also with him, that it is the method in which the greatest amount of motor and directing force can be applied with least of inconvenience to the operator. It is not difficult, however, to succeed in the reduction of these dislocations by manipular movements, without attending to any precise rules on this head, the requisite degree of force being easily obtained. Many cases which we have previously recorded have proved this.—J. H.

seen to present a concavity instead of the curved prominence natural to it. The explanation was of course easy, in the circumstance that the bone was thrown backwards, carrying with it the muscles of the thigh.

In a case which occurred some few months ago under his care in Guy's, Mr. Hilton drew attention to a condition which was extremely well marked, respecting which he observed, that although rarely attended to, he believed it to be one of the most useful diagnostic signs in difficult cases. It consisted in the loss of support from behind to the vessels. On pressing the finger on the latter the existence of a hollow behind them, and the deficiency of that firm support which they naturally possess was most readily appreciated. This sign would be of great value in those cases in which the difficulty in diagnosis lay between dislocation of the bone and fracture of its neck or shaft high up.

We are anxious to draw attention to the above observations, because everything is of importance which tends to render more certain the diagnosis of these dislocations. Few things are more damaging to a Surgeon's reputation than to have made a mistake in the opinion he has given as to the nature of a case of this kind. Yet although, under certain rare combinations of circumstances, the detection of a dislocation of the hip must be admitted to be a matter of great difficulty, we cannot but think that in the majority of the cases in which mistakes occur, the fault is rather in a careless examination than either in absolute want of knowledge on the part of the Surgeon, or real obscurity of the symptoms. To strip the patient, to expose both the sound and the injured side, to try the motions of the joint in different positions, standing as well as lying, these are precautions which, if observed with care, we can scarcely think would allow of the committal of error. It may be, from swelling having already occurred, that the prominences of the part have been concealed, and so much tension and tenderness produced that the patient will not permit the necessary manipulation. Under these circumstances we cannot but think that it would be much better at once to put the patient under chloroform, and make a satisfactory examination, than to wait in uncertainty till the swelling has subsided. Not only would the use of anæsthetics under such circumstances facilitate diagnosis: it would greatly aid treatment. The reduction of either a dislocation or a fracture would be much more easy during the relaxed state of the muscles thus produced than while the patient was conscious.

ST. THOMAS'S HOSPITAL.

CASE OF MALIGNANT DISEASE OF THE RIGHT UPPER JAW. EXCISION—RECOVERY.

(Under the care of Mr. F. LE GROS CLARK.)

[Dresser and Reporter—Mr. BATESON.]

The following case is one which affords strong encouragement to the operative Surgeon. Not only did the patient recover well after a serious operation, by which she had been relieved of a very distressing and necessarily fatal disease; but, as several years have now elapsed since its occurrence, we are able to state that she remained well for a considerable period. Mr. Clark informs us, that he saw the woman about six months ago, and that till shortly before that time she had been free from any indications of a return of the disease. There were, however, then symptoms of a very suspicious nature. She has not since presented herself. Although, therefore, it is to be feared that the cure will not prove permanent, yet somewhat more than two years of comfortable life have been obtained by the operation, a result most fully justifying its performance; and, considering the malignant nature of the disease, much better than could have been expected. With regard to excision of the upper maxilla, we may remark, that it is an operation very much more formidable in name than in reality. The case is in nowise exceptional to the general rule of such operations, in respect to the ease and rapidity with which the recovery was effected.

Mary Carter, aged 53, married. Admitted into Lydia's Ward, St. Thomas's Hospital, November 29, 1853.

From particulars furnished by Mr. Hare of the Tunbridge Wells Infirmary, it appears that she was an inmate of that institution for some time during last Summer. "She was admitted with a large fleshy tumour of the right upper jaw, which gave rise to inconvenience on account of its size; several teeth were removed, and the growth excised, after which potassa fusa was applied,—the opinion of the Surgeon being, that the disease was malignant, and, that eventually the jaw would have to be removed. She was so far relieved as to be able to leave the Infirmary to all appearances well. She was discharged at her own request on September 17, having been in since July 29. On October 24, she again applied for admission, and was made an out-patient; at this time the growth had resumed its original size; the whole of its exposed surface was ulcerated, and giving off a very fœtid discharge: her general health was much impaired. Liq. potass. chlorid. wash, and an aliterative plan of treatment, was advised; she attended for three weeks only." This report brings the case down almost to the present date. From her statement to the reporter is gathered the following:—that altogether she has been troubled with this affection for two years and a-half—that at the commencement she perceived a very small nodulated swelling in the skin, as she says, over the canine fossa, which was loose and moved with the integument; this increased in size, slowly growing forwards, enlarging outwards, when she applied at the Tunbridge Wells Infirmary.

At the present time, November 29, she has over her right cheek an elevated growth or tumour, with its surface uniform to the touch and having a red, shiney appearance. Its situation is over the alveoli of the bicuspids and first molar. It is very soft and very tender when pressed. Examination of the interior of the mouth showed that the tumour extended from the gums to the cheek; the disease extending to the under part of the gums, but nowhere to the inner side of them. The free portion consisted of a non-ulcerated outer surrounding portion and an interior ulcerated part, discharging a pus-like fluid extremely fetid and offensive. Careful examination showed that the disease had extended to the superior maxilla; and accordingly the tumour was not moveable.

She is not aware that any of her family ever suffered from anything like cancer. She has suffered for some time past from headache and a severe aching pain along the angle of the lower jaw, and just under the ear of the affected side, which is increased on moving the jaws in mastication. With this exception her general health is pretty good; her appetite is fair, bowels regular, pulse good.

Ordered. Ol. ricini, p. r. n. Lot. sod. chlorinat.

Mr. Clark, after two or three very careful examinations, decided on removing the tumour with a greater part of the maxilla. Mr. Green and Mr. Clark's colleagues saw the case, and agreed with him in this view. On December 10, Mr. Clark performed the operation: he removed the tumour, part of the maxilla, leaving the floor of the orbit. The first incision was a long one in the axis of a line drawn from the root of the zygoma to the angle of the mouth; there was not much hæmorrhage—no ligature required; the wound was brought together by means of harelip pins. No chloroform used. She bore the operation well. In the evening of the same day the patient was quiet, and no hæmorrage from the wound. With hardly a bad sympton she convalesced rapidly; the night immediate after the operation she described as the most comfortable one she had had for months, which fact, however, is qualified by her taking at 10 p.m. 40 minims of the liq. opii sedativ. On the 29th she had a smart attack of diarrhœa, which yielded readily to the ordinary astringents.

She left the Hospital January 10, well.

Dr. Bristowe examined the tumour, and the following is an extract from his report:—

Under the microscope it presented cells and nuclei of every size and shape; many of the cells were very large, and contained nuclei, also having within them nucleoli. The shape of the cells varied; their contents were faintly granular. The nuclei varied as much as the cells; sometimes they were free, and always contained one or more nucleoli. A few commencing characteristics of epithelial cancer were present sufficiently distinct to show positively that the tumour belonged to that class.

THE METROPOLITAN FREE HOSPITAL.

CLINICAL REPORT ON SOME OF THE USES OF THE CHLORATE OF POTASH.

(Communicated by Mr. HUTCHINSON, Surgeon to the Hospital.)

I am not without a fear that I shall be charged by some with writing in praise of a remedy which has been long known and the virtues of which are already widely appreciated. My apology and answer to such a charge are twofold. In the first place, the belief that a drug, the powers of which in certain cases are little less than wonderful, has not yet obtained the reliance of the Profession to anything like the extent deserved—an opinion which is supported by reference to our best author (Pereira) on Materia Medica, who writes concerning it, that he is inclined to think that most of its uses have been founded on untenable views of chemical pathology, and that its effects have been much overrated. In the second place, what of reputation the Chlorate of potash enjoys, has appeared to me to rest too much on mere general impressions, and hearsay evidence, and has consequently, if I may so speak, been of a wavering character, possessing but a very uncertain tenure. With these views, I have been anxious to submit to the sifting scrutiny of the Profession a collection of clinical facts, for some of which I might, perhaps, be bold enough to claim something of the character of demonstrative proof. In the report to follow, I shall make no allusions to theory, but will confine myself to the simple results of observation. Respecting these observations, I may state that most of them have been made on patients under my care at the Metropolitan Free Hospital; and that they have the great advantage of having been conducted, with very few exceptions, on those attending as out-patients. This circumstance insures them from one large source of fallacy, which attends all observations as to the effects of remedies made upon those who, by being transferred from the miserable house where the disease commenced to the regulated diet, clean ward, and pure air of a well-ordered Hospital, have had their whole sanitary *régime* so thoroughly reformed, that a large number of recoveries might be expected, without reference to any special treatment or drugs. Some years ago I was in the habit—as I believe, indeed, most still are—of giving chlorate of potash in combination with bark or some other tonic; but latterly I have administered it in simple solution in water, without any combination whatever. Further, to escape deception, I have, in most instances, avoided the use of purgative or any other remedy, which might complicate the treatment, have given no directions as to diet, or, if asked by the patient to do so, have directed them to live just as they have been used to do.

The most convenient arrangement will probably be to take seriatim into consideration the several diseases, or types of disease, which the observations concern. To commence, then, with

FOLLICULAR STOMATITIS.

This disease, marked by numerous round aphthous excoriations of a greyish-white colour on the tongue, lips, gums, etc., is not uncommon among children of all classes. It is attended with fever, and generally makes the mouth so sore, that for several days the patient is almost prevented from taking food. The breath seldom becomes fetid, and the gums are not generally either spongy or liable to bleed, these symptoms being reserved for a distinct and much more severe form of the affection. Follicular stomatitis is liable to prevail epidemically; and the first trial of the chlorate of potash against it which occurred under my observation was eight years ago in the city of York, where we had, for a month or two, a considerable prevalence of the disease. I took notes of a large number of cases, giving the remedy in five-grain doses, and generally using purgatives also. The success achieved was uniform, the symptoms almost always vanishing within the week. One morning, however, a girl, aged 10, was brought to me, presenting a most marked and severe form of it. She had had it four days, and two of her sisters had suffered before her. The usual prescription was given. Three days afterwards I called to see her, and, to my delight, found the most marked improvement. Many of the sores had healed; no fresh ones had formed; the febrile disturbance had quite subsided. While making a note of this pleasing result, the mother of the patient interrupted me with the information, prefaced by many apologies, that she had taken the prescription to three druggists, none of whom could make it up; and that, consequently, the child had taken only the aperient dose, and never had the chlorate at all. It is needless to say, that I threw aside my series of cases in disgust, convinced that before I could investigate remedies I must know more about the natural course of the disease when uninterfered with. Since then I have allowed several cases of follicular stomatitis to take their course without treatment, and my conclusion is, that the disease is a subacute febrile disorder, of itself often transitory and spontaneously curable. My impression is, however, that it passes off more quickly, and that the troublesome soreness of the mouth is much sooner well, when the chlorate is given than when it is omitted; but this impression is, for obvious reasons, not easily susceptible of being converted into an established fact. This affection is one which, perhaps, concerns the Physician rather than the Surgeon. During the past year, however, the following eight cases have presented themselves in my room:—

Follicular Stomatitis.

No.	Reference.	Sex.	Age.	Condition of the Disease.	Duration.	Treatment.	Result.
1	Z 411	F.	7	General inflammation of mucous membrane of mouth with many excoriations. Could not eat.	7 days.	Gr. x. ter die. Ol. ricini.	Nearly well in three days; quite well in a week.
2	Z 481	M.	18 months.	Follicular excoriations. Pale, feverish; dentition.	7 days.	Gr. iv. ter die.	At the end of week, mouth had been quite well for a day or two.
3	P 913	M.	10	Very severe follicular stomatitis. Ill; had been confined to bed ill ten days. Breath fetid and gums swollen. Much pain: cannot sleep.	4 days.	Gr. xii. ter die.	In four days much better, mouth nearly well; sleeps and eats well; no fetor in breath.
4	P 954	F.	3	Follicular ulcers: not a severe case.	1 week.	Gr. vj. ter die.	Did not attend again.
5	P 1322	M.	9 months.	General stomatitis with follicular ulcers on tongue and gums. No fetor of breath, but the gums often bleed. Feverish and cross.	2 weeks.	Gr. vj. ter die.	Three days after the mouth was nearly well. Croup supervening, the medicine was suspended. The mouth got quite well within the week.
6	P 1469	F.	2	Severe inflammation of mouth. Many superficial ulcers on tongue and lips. Gums spongy and teeth foul. Feverish and restless.	3 days.	Gr. x. ter die.	In three days lost fever and began to eat well. In a week was perfectly well in every respect
7	P 922	M.	4	Abraded patches on left side of tongue, abruptly margined. Disease mild. Feverish.	4 days.	Gr. vj. ter die.	Four days after the patches were much less red and were healing. Did not attend again.
8	P 1274	M.	14 months.	Follicular abrasions on tongue, lips, etc. Dentition.	2 weeks.	Gr. vj. ter die.	Did not again attend.

In four of them the disease was certainly of unusual severity. One reason for thinking that in all probability the chlorate did exert a curative influence is, that in all the benefit commenced within about the same time of its trial, and without regard to the stage of the disease. Thus in one the disease had only existed three days, in another, four, in three,

seven, and in one, two weeks; yet all were far advanced in cure within three days of the use of the drug. The next class to which I shall pass is that of

ULCERATIVE STOMATITIS.

It would not, perhaps, be warrantable to assert that this disease is in no ease connected with the preceding, but, speaking generally, it is perfeetly distinct from it. It affeets unhealthy ehildren, as a rule commences at a single spot, usually the lining of the left cheek. Its first stage is insidious, or, at most, subacute, and there is little or no premonitory febrile disturbance. The ulcer spreads gradually; its surface is covered with dirty, pultaceous secretion, and exhales an abominable fetor. The child appears to suffer great pain, and the surrounding tissues of the cheek become, in some degree, swollen and brawny. It may be doubted whether the disease has any connexion with a speeific poison; at any rate, it certainly does not observe any laws of periodieity, but may be of very various lengths of duration and degrees of severity. In what does it differ from eancrum oris? Probably in degree only. Cancrum oris is, in all likelihood, but an intense form of it, in whieh the symptoms run their course rapidly. Between the two, all gradations may be observed, from an affeetion whieh kills in the eourse of a few days, destroying the whole eheek by sloughing phagedæna, and one of which the sole sign is a small, painful, unhealthy uleer on the mueous membrane, whieh advanees so slowly that it shows but little progress even in the eourse of weeks. Canerum oris is a very rare disease; and probably not one-twentieth of the cases of phagedænie stomatitis ever proceed to such a stage as to merit that designation. Of true canerum oris I have, during the past year, had but one case under care, and it came under treatment when the little patient was all but moribund; and as death took place before a seeond dose of the medicine eould be given, I may fairly exelude it from eonsideration in the present report. The following five eases are examples of phagedænie ulceration, several of which I am disposed to think would have run on to mueh greater severity had they not been arrested by treatment. I would venture to ask espeeial attention to their particulars, as they are those in which the power of the chlorate seems most conelusively shown.

Case 9.—S. Chatfield, aged 7, an unhealthy-looking girl, was kindly transferred to my care by my colleague Dr. Ramskill, on Deeember 9, 1854. Dr. Ramskill knew my crotchets in respeet to this remedy, and sent her as an instanee in which the chlorate of potash had failed to effect any permanent benefit. She had been for five weeks under his care, and had taken for the first month of that time 7-grain doses of the salt three times daily in bark. The disease, whieh was sloughy ulceration of the cheek and tongue, had at one time been nearly healed, and then again relapsed. It had not got worse under observation, and was now much in the state it first presented. A sulphate of eopper lotion had been freely applied. The girl looked ill, being of a yellow, dusky eomplexion, and of a heavy, oppressed aspect. In her left eheek was a large irregular ulcer, with a surface covered with a grey glutinous secretion, and its edges livid. The cheek was much swollen, and was firm and somewhat brawny. On the opposed surface of the tongue was an ulcer of similar character, about an inch in length. The gums were spongy, and the teeth rather loose. One tooth, the first molar, was so loose that, being decayed also, I thought it best to remove it. The tooth did not present any sharp points whieh eould have been supposed likely to irritate materially. The breath was very fetid. Twenty grains of the ehlorate were ordered in bark three times daily. No other remedy. No alteration in diet. Four days afterwards the breath was free from fetor; the ulcers were elean, and presented healing edges. The ehild looked much better. Ten days after the ulcers were all but healed, when suddenly a relapse took place, and they again opened. The breath again beeame somewhat fetid. I suspected an omission of the medicine, but could not obtain any confession that such had been the case. The ehlorate was now increased up to half a drachm. This dose was borne without any ineonvenience, and having been continued for ten days more, the mouth became quite and permanently sound.

Case 10.—M. A. Barnett, aged 7, a fair complexioned child, not unhealthy-looking, living near Victoria-park, and aeeustomed to much out-door recreation, applied as an outpatient on April 18. In the lining of her left cheek was a large ragged ulcer, eovered with pultaceous secretion, and on the opposed gum was another about a third of the size, but similar in character. There was no material thickening of the cheek. Her complexion was clear, and not faded, and, excepting the pain of the sore, the only symptom of ill-health from whieh I could ascertain that she had suffered was an almost eonstant ehilliness. Her parents were not of the poorest class, and, excepting that she had had but little meat, her diet appeared to have been good. The disease had existed a month, and was getting worse, in spite of treatment. The remedies whieh had been used were aperients, and the local application of borax and honey. Ordered: 15 grains of chlorate of potash in water coloured with tincture of cardamoms. To live exactly as usual. A week's supply of the medicine was given, and the patient did not attend again. On August 11, however, on returning from a few weeks' absence from town, I found this girl again among my patients. She had been admitted on July 18, that is three months after her first attendance, with a relapse of the original disease. Her mother told me that on the former occasion, after taking the week's supply of medicine (that is about ʒvj. of the chlorate), the sore all but healed, and for some weeks she was so nearly well that it was not thought worth while to bring her to the Hospital. After remaining thus for three weeks, however, it relapsed, and slowly spread. When re-admitted on July 18, a friend of mine, who was kindly on duty for me, prescribed the chlorate in doses of three grains and a-half; and this she had now taken for three weeks, the disease remaining nearly *in statu quo*. The ulcer was still sloughing, the teeth were loose, the gums easily bled, and the breath was fetid. The mother begged me to order the ehild the medicine I had given on the former occasion, and which, to use her own expression, "had eured her directly." I did so, thus increasing the dose from 3 to 15 grains. In three days, the sore cleaned, and the breath beeame sweet; and, in spite of the omission of the medicine on one occasion for three successive days, the patient not attending, I was at the end of a fortnight able to make the following note:—"Excepting a few small points along the margin of the ulcer, it is perfeetly healed. The gums do not bleed, but are sound, healthy-looking, and not unduly red. She ean eat anything, and is quite well in every respect."

Case 11.—Miriam Wolf, aged 5, a pale, delicate child, was admitted on September 8. There were no sores on the eheeks, but the gums were swollen, ulcerated, and bled when touched. The breath smelt horribly. She could not eat, and was stated to have slept badly. The disease had existed for eight days, and followed measles. Borax and honey had been used, but the condition of things was rapidly getting worse. Seven grains of chlorate of potash three times daily and a single aperient were ordered. One week afterwards, the gums were sound, the breath sweet, and she could sleep and eat well. Fearing a relapse, I recommended a continuance of the medieine, but the mother did not think it worth while to attend again. On account of another disease, I saw her a month afterwards, and then learnt that there had been no return of the stomatitis.

Case 12.—Rachel Woolf, aged 2, a pale, delicate Jew ehild, was admitted on June 9 with a phagedænic uleer in the right eheek. The whole cheek was mueh swollen, and presented externally a tense, smooth hardening. The breath was fetid, and the gums liable to bleed. The disease had followed measles three months ago, and was advancing. The ehild suffered much pain, and had lost flesh greatly. Her appetite was pretty good, but she slept very badly. Ten-grain doses of the chlorate in water three times daily were ordered. No other treatment. A week later the smell had almost disappeared, the eheek was fast healing, she could sleep well, and seemed free from pain. Improvement had been apparent two days after eommencing the medieine, and had progressed steadily. The medicine was repeated, and the child did not attend again, being, I have no doubt, cured.

Case 13.—Miehael Lipman, aged 5, a short and florid boy, who had been well fed and cared for, came under care on Oetober 13 of the past year. Excepting two molars on eaeh side, he had never cut any teeth in his upper jaw; the teeth in the lower jaw were very small and imperfectly formed ones. The disease, however, for which he came was a deep phagedænic ulcer in the gum of the upper jaw, about an inch and a-half in length, and involving the space which the incisor teeth should have occupied. The mouth was full of saliva, the breath was fetid, and the sore liable to bleed. The ulcer was occupied by grey gelatinous secretion, and

looked exactly as if the incisor teeth had all been extracted, and the wound had sloughed. The history was, that the disease had commenced five months ago, but had much increased in severity during the last week. The lower lip was swollen, and hung down, but there were no excoriations or aphthæ on it. The chlorate in 15-grain doses in water was ordered. On October 20, one week after, the sore was nearly clean, and for several days there had been no bleeding. On October 27 the gums were quite sound, and the sore healed, excepting in the centre, where the exposed fangs of the central incisor teeth could now be distinguished. During the next week he took no medicine, and at the end of it the gums again showed a tendency to bleed, the sore, however, not relapsing. The remedy was repeated, and the gums again ceased to bleed.

These five cases, with one exception, in which the disease was mild, and the patient attended but once, comprise all the examples of this affection which have come under my care during the period included in this report. They all of them show the disease, which in several was in a very threatening stage, yielding to the remedy with a rapidity and in a manner which it is, I think, not possible to misinterpret. In two we have it barely kept in abeyance by small doses, and at once cured on the substitution of larger ones. It would appear, indeed, that in whatever stage the disease presents itself, from three days to a week's use of full doses is all that is requisite for its arrest. They also show the necessity for continuing the remedy for a little time after the cure of the disease, if relapse would be prevented. I will now pass to some cases in which it was used against

MERCURIAL PTYALISM.

Case 14.—Eleanor Cole, aged 19, a prostitute, came under care on account of primary syphilis. A pill containing gr. iij. of blue pill and a quarter of opium was ordered twice daily. At the end of a week she presented herself, most profusely salivated. Only about two pills had been taken, as she had been directed to suspend them as soon as the gums were touched. The lips, gums, and cheeks were much swollen; large, ulcerated, sloughy surfaces on the inside of the cheeks; the smell was very fetid, and the discharge of saliva profuse. She could neither eat nor sleep. The original sore had lost its hardness, and was nearly well. Ordered fifteen grains of chlorate three times daily, in water. Three days afterwards the mouth was nearly well, and she then stated that there had been perceptible improvement on the second day. At the end of a week she could eat crusts, and the gums were firm and sound.

Case 15.—Anne Mallis, aged 28, a prostitute, applied for treatment on account of a large, circumscribed patch of syphilitic impetigo on the buttock, from which she had suffered for nine months. Ordered five grains of blue pill every night, and three grains of iodide of potassium three times daily. These remedies she persevered with for a week, although her mouth had become sore on the third day. Ten days after her first visit she came to me for a second time, being then most profusely salivated. The eruption had disappeared. I ordered the chlorate of potass in scruple doses, and in a few days her mouth was well.

Case 16.—Cornelius Fitzwilliam, a pale, cachectic man, was ordered to take five grains of blue pill every night, on account of primary syphilis. He continued the remedy for a fortnight, at the end of which time rather profuse salivation set in. It had been increasing for five days before he attended, and for two he had omitted the pills. The gums were much swollen, the teeth coated, and the mouth running with saliva. Inside the cheeks were superficial ulcers. Ordered ʒj. of chlorate three times daily. Three days afterwards the sores in the cheeks were healed and the gums were very greatly improved; the salivation was, however, still slightly present.

At the time these cases were under treatment I did not know but that they were the first in which this remedy had been tried in salivation; but more recently I have been glad to find much corroborative testimony in a paper published in the *Bulletin General de Therapeutique* for May of the present year. It would appear, that M. Herpin, of Geneva, MM. Blache and Demarquay of Paris, have all tried it, each in a series of cases, and with the most favourable results. To M. Herpin belongs the merit of having been the first to use it. Doses of about ten grains, three times daily, seem to have been the favourite ones; but in one case it was pushed as far as a drachm. Of Demarquay's cases, six in number, the details of which are given, four days was the average time occupied in effecting complete cure. To those who have confidence in the powers of the chlorate against the other forms of stomatitis, the employment of it against that caused by mercury is but a very natural step, and there is nothing surprising in the circumstance that it should have suggested itself to several independent observers about the same time. That they should have all agreed in their results adds much of certainty to their conclusion.

(To be concluded.)

Medical Times & Gazette.

SATURDAY, AUGUST 16.

PATHOLOGY OF THE CRIMEAN EXPEDITION.

We may look upon the Blue Book containing Dr. Lyons' Report on the Pathology of the Diseases of the Army in the East, as a sort of symptom, or, if we may use such a phrase, as an instalment of a symptom, that people in high military quarters are beginning to yield to the experience of the four or five thousand years during which the human race has been perpetually at war. That there were wars before Helen, we have a very high authority for believing: how much before, is a question we will not pretend to solve. But the truth which all experience, from the Trojan war downwards, has hammered out, is this—That men who go to war are killed in far greater numbers by causes acting within their own camps, than by meeting the enemy in actual fight; that pestilence is more fatal than battle.

Of course, this is a very hard truth for the digestion of veteran martinets, who look upon soldiers as so many machines, to be marched, drilled, encamped, and fed, under the uncontrolled orders of General Routine, that ancient slayer of men. Fancy the General's indignation, if, upon ordering a newly-arrived regiment to encamp upon ground rotten with ordure, a mere Medical person should remonstrate, and allege that he would lose half his men with the cholera! Yet we expect that Dr. Lyons' Report must have this effect—that it will be formally acknowledged that the efficiency of any armed force depends mainly upon certain physiological and hygienic conditions, and that these must be observed at all times, unless under the pressure of extreme strategic difficulty.

At the end of April, 1855, Dr. Robert D. Lyons, of Dublin, who had already acquired considerable repute as a Pathologist and Microscopist, was instructed by Lord Panmure to proceed at once to Scutari, and thence, if necessary, to the Crimea, for the purpose of making a Report on the pathology of the diseases of the Army. He was not to interfere with treatment; but he was to make his observations on causes and symptoms during life, and more especially to note *post-mortem* appearances; for which latter purpose he was entrusted with unlimited control over the *post-mortem* department, and was informed that he was provided with all necessary means and appliances for the purpose.

It will not surprise our readers, familiar as they now are with the management of the late war, and its "horrible and heart-rending" consequences, to be told that at the very commencement of Dr. Lyons' Report is a statement, "that not until the expiration of more than two-thirds of the period originally assigned for our inquiries were I and my assistants put in possession of the necessary instruments and appliances for the due prosecution of our labours."

It seems to be a subject of congratulation with most newspaper writers, that although we were miserably unprepared at the beginning of the war, and our affairs disgracefully mis-

managed, yet that we were never in so good fighting a condition as at the end of the war; and that, if the war had only lasted long enough for us to get thoroughly awake and prepared, no enemy could have stood against us. We, as pathologists, may express analogous opinions regarding Dr. Lyons' labours. Entering the field, as he did, without means and appliances, he exhibited, spite of obstacles, the most creditable pluck and *solidity*; and, had the war lasted long enough, he would doubtless have exhausted the pathological subjects, which, under many disadvantages, he treats with a boldness and comprehensiveness which show no mean ability. We may remark that, finding the matters of interest in the Scutari Hospital to diminish rapidly, exhibiting, as they did in the summer of 1855, but the fag end of the effects of the "horrible and heart-rending" events of the foregoing winter, Dr. Lyons proceeded to the Crimea, where, in addition to inspecting the Hospitals, he took charge of a large proportion of the wounded after the assault on the Redan of the 8th September, and performed a large number of surgical operations.

It is our purpose in the present article rather to call attention to the fact of Dr. Lyons' Report, to the auspices under which it was issued, and to the importance which it claims for physiological considerations, if at any time warfare is to be carried on with less than the usual sacrifice from pestilence, than to dwell on the details; yet there are one or two of these that we willingly notice.

Dr. Lyons lays great stress on the impolicy of recruiting armies from the ill-developed and squalid masses of the manufacturing towns. But, in England, the full half of our population threatens to be manufacturing, so that there arises a most serious question for the statesman. Ought not the State to interfere to take care that the poorer denizens of towns have opportunities of pure air, and of athletic exercise, of occasional liberty from their cramping and sordid avocations, so that if called upon to fight for their country they may do so like men?

The extreme youth of a large proportion of the British Army is another matter of comment. Dr. Lyons is no enemy to early enlistment, but contends that the young soldier wants a course of training and hardening, if he is not to be a burden on the Hospitals, rather than serviceable in the field.

Adverting, for a moment, to the curious fact, that in all armies, at all times, the morbid influences prevalent, whatever they may be, expend their chief force on the Abdominal Viscera, in the shape of Bloody Flux, Cholera, Typhoid Fever, and similar disorders, we may notice the curious feeling of satisfaction which steals over us, as we see in Dr. Lyons' report the names of maladies familiar to the student of classical medicine, but which have almost become myths to the Physician whose acquaintance with disease is confined to English practice only. There is the *Lientery*, the *Lævitas Intestinorum* of Celsus, known even in England in the last century under the name *lubricity of the intestines*, inasmuch as we find Samuel Johnson prescribing for it under this name, as may be seen in "Boswell's Life," but now seldom talked of, although in our own practice among children we are familiar enough with it. It seems to involve a suspension of every function of solution, digestion, and absorption in the stomach and intestines, insomuch that the food passes as it is swallowed, and the particles of carrot, biscuit, and potato can be recognized unaltered in the fæces. Here is a malady which has, as it were, almost dropped out of knowledge; a malady dependent on wrong vital conditions; not a disease, yet the first symptom and forerunner of hosts of diseases; and we feel thankful to Dr. Lyons for having called attention to this complaint, the existence of which in the Crimea, shows how, under the pestilential air of a camp, every morbid condition acquires gigantic proportions.

THE WEEK.

It must be satisfactory to those who, like ourselves, have maintained the sanity of the prisoner William Dove, to know that a full confession was made by that criminal before his execution, and that no symptom of mental aberration could be detected in his manner or conversation. He accuses a person named Harrison, who has the reputation of being a wizard, of instigating him to the commission of the murder of his wife, but we do not know that much credit is to be attached to this accusation. The administration of the poison appears to have been planned and executed with great cunning and with full premeditation, and many doses were administered before the fatal symptoms were developed. Dove certainly knew that he was doing wrong when he gave the poison to his wife; and he describes his perturbation of mind when he began to fear the consequences of his murderous act. The plea of insanity in this case has entirely failed, as, indeed, it ought to have done; and for the sake of public justice and of public example, we are glad that no mawkish notions of ill-directed compassion were allowed to influence the authorities to interfere with the fulfilment of the sentence of the law. A more atrocious crime was never perpetrated than to send an unoffending and feeble woman to her long account by one of the most cruel of poisons; and if the murderer had been allowed to escape, from mistaken views of mercy, the jury who acquitted him would have had to answer for the deaths of many more victims of this deadly drug. The peculiar ingenuity of Palmer, and his too-evident intimate acquaintance with the nature and effects of poisons, might, no doubt, enable that wretch to evade for a time the vigilance of justice, and the strange kind of fascination which he seemed to exercise over the minds of those around him secured to him apologists, if not accompliees, of his crimes: but few persons are endowed with his extraordinary coolness and self-possession, and in most hands poisoning becomes a vulgar crime, easy of detection, and quickly followed by punishment. We firmly believe that poisoning by strychnia will soon be numbered with the things of the past. The plea of insanity in criminal cases has been very much weakened by its being set up in the case of Dove; and we hope, for the credit of Medical science, that we shall no more witness the spectacle of distinguished members of our Profession coming forward before Judges and Juries to confound together insanity and crime, and to procure acquittals at the expense of public justice and common sense.

An attempt is about to be made to introduce into this country an establishment, analogous to those which already exist on the Continent, for the reception of sick persons of the middle and upper classes of society, under the superintendence and support of the members of the Medical Profession. The Sanatorium, which has been lately built at Highgate, will comprise all the advantages of the so-called Hydropathic establishments, without the absurdities by which the water-cure system is rendered ridiculous. No rational person ever doubted the efficacy of bathing and of drinking pure water, in the treatment of many diseases, more especially when the treatment is combined with due attention to diet, exercise, amusement, and the charms of country scenery. As an adjunct to Medicine, or as a medicine itself, water, either as ice, water, or steam, is one of the most valuable remedies in the hands of the Medical Practitioner: and we should be happy to see springing up in all parts of the country, establishments under Medical superintendence, where the efficacy of water may be duly tested, and a powerful instrument of good be thus taken out of the hands of the quack, and legitimately applied to the purposes of scientific Therapeutics.

Those of our readers who have time in their Autumn holidays to reach Vienna, will have a very favourable opportunity of visiting the Austrian capital, as the thirty-second meeting of German Naturalists and Physicians will be held between the 16th and 22nd of September. There are special sections of Anatomy and Physiology, Medicine, Surgery, Ophthalmology and Obstetries. It is expected that the Professional gathering will be very large. The Secretaries have published a request that all foreign visitors who wish for private residence during the time of the meetings, should apply to them, stating whether they prefer the city or the suburbs, and whether they propose arriving in Vienna by Northern or Southern rail, or by steamer.

A Return has lately been printed by order of the House of of Commons, setting forth the accounts of several of the Fire and Life Assurance Offices now in existence. Putting aside the Fire Offices as not being within our province, it will be found that the condition of many of the new Life Offices is far from satisfactory, as it seems that some of them are paying their current expenses out of their capital. This reckless course of carrying on business is the consequence of the enormous competition existing among the new offices, which have sprung up in such multitude of late years ; but recent revelations in connexion with some suspicious deaths of assured persons, and the publication of the accounts of many of the Offices in the Parliamentary Blue-Book, will no doubt lead to a crisis, which may be attended with beneficial results to the offices themselves and to the public. Life Assurance is so valuable a method of enabling a professional man to make a provision for his family, and the whole scheme of Life Assurance Offices is of so generally beneficial a character when well-regulated, that it will be a matter of great satisfaction when the working of these institutions is placed upon a secure and healthy foundation.

Notwithstanding the great heat of the weather, it is gratifying to learn, by the Report of the Registrar-General, that the mortality of the Metropolis is below the average, and that from diarrhœa, which usually prevails at this season, the deaths have not been numerous. Although we announced, on no mean authority, that a case of Asiatic Cholera had occurred last week in one of the Metropolitan districts, we have reason to believe that it was a case only of aggravated Summer Cholera; and it may, therefore, be stated that no true case of Asiatic Cholera has yet visited us during the present season.

It would appear that the German Physicians and Surgeons who entered the service of the Russian Army have received treatment even worse than that which our own Medical brethren have experienced from the British Government. It is said that the late Emperor induced a number of German Medical men to enter the Russian Army by the promise of a pension for life, on consideration of joining a foreign service, but that in very few instances has this promise been fulfilled.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON LARGE DOSES OF OPIUM IN OBSTINATE CHANCRE.

By M. RODET.

M. Rodet observes, that the general conclusions to be drawn from the observations of writers on syphilis are, 1. That opium, conjoined with mercury, in the treatment of bad chancres, acts as a powerful auxiliary. 2. That it often cures ulcers of this description that have not yielded to mercury. 3. That it may ameliorate, but not cure, such ulcers, when given alone, and without having been preceded by mercury. 4. That it is well suited for assuaging the inflammation which complicates syphilitic accidents.

After considerable employment of it in such cases, he has himself come to the conclusion that it is an error to regard it as a mere succedaneum of mercury; it acting, in fact, most efficaciously in just those cases in which mercury is of least use, and *vice versâ*. Thus, in constitutional syphilis, it acts as a mere corrective of the powerful specifics with which it is conjoined, and should only be given in very small doses. Here, as also in the case of indurated chancre, given alone and in large doses, it not only would do no good, but might do great mischief. When, however, the chancre manifests any tendency to phagedæna, or is irritable and painful, mercury should be rigidly forbidden, while opium is always useful in assuaging the pain, diminishing the irritability, and modifying the suppurative process. But the case in which truly remarkable effects are produced by opium, and in which it acts almost as a specific, is that of *phagedænic, serpiginous ulcers*. These are fortunately rare. All those met with by the author have succeeded to a virulent bubo, which empties itself of a sanious discharge. The bottom of the ulcer is greyish, pultaceous, and irregular. Its edges are raised, very jagged, and deeply detached, so that the ulcer is always much larger than it appears to be at first sight. If the edges are raised up, we may observe, at several points, infractuous cavities, irregularly disposed, and filled with sanies and organic debris. These result from a chancrous erosion, which seems to act by destroying the tissues circularly around several partial centres. The general progress of the ulcer consists in its extension from the centre to the circumference, its edges being formed by partial, semicircular ulcerations, each having its particular centre, and extending from this to the circumference. These partial ulcers do not extend uniformly, some progressing much more rapidly than others, giving always an irregular form to the principal ulcer. Not only do they destroy the subcutaneous tissues, but they also gnaw away the deeper surface of the skin, rendering it more and more thin, until at last it disappears. Sometimes it is the free edge of the skin that first disappears, and, at others, the portion corresponding to the small *cul-de-sac* of the little ulcer, so that we then see around the circumference of the principal sore one or several little ulcers, with notched and everted edges, which look like chancrous pustules accidentally developed around this ulcer. Once formed, these little sores continue to enlarge until the skin separating them from the large one is completely destroyed. But, as these small ulcers become confounded with the original ulceration, other partial ulcerations are produced in the same way. To these others succeed, and so on, for an indefinite period. Ulcerations of this kind may persist for years, laying waste vast regions, extending from the inguinal region along the upper part of the thigh, the hypogastrium, the scrotum, perinæum, or the buttock. The irregularity of their form is usually greater in proportion to their extent, and is shown in advancing and retreating angles, and sinuous and irregular lines, which cannot be more accurately compared than with the lines of certain shores as depicted on geographical maps. The sore progressively cicatrizes over as it extends, fresh ulcerations simultaneously breaking out, so that an actual displacement from its original locality has taken place. Sometimes, the cicatrices are only partial, forming a kind of islets ; but such cicatrices are sometimes destroyed by the ulceration taking a retrograde course. Generally, the surface of the ulcers is violaceous, and formed of softened tissue devoid of vitality. The edges are always more irritable than the centre, bleeding easily, sensitive to the slightest touch, and the seat of incessant pain of varying degrees of severity. These ulcers never give rise to constitutional symptoms, whatever their extent or duration, but the patient becomes gradually enfeebled, and falls into a state of marasmus, his spirits being at the same time much depressed. The appetite and digestion are feeble, sleep is interrupted, the skin becomes dry, and the countenance assumes a leaden, roughened aspect.

No form of syphilis resists the action of remedies with such tenacity as do these phagadænic serpiginous ulcerations. M. Rodet, prior to resorting to large doses of opium, treated them by a great variety of means, without any satisfactory result. The cyanide of potassium, although incapable of healing them, effected considerable amendment in their ap-

pearance. The iodide of potassium was found to be of no avail; and those who believe in its efficacy have confounded these primary ulcers with other serpiginous ulcerations, which much resemble them in appearance, but which appear during the tertiary period of syphilis. As to mercury, not only is it useless, but mischievous, and should be rejected. When the ulcers decidedly manifest the appearances above described, opium exerts a most beneficial effect upon them. In less well-marked cases, it is also useful, but its efficacy is not so complete. For this remedy to succeed, therefore, it is necessary that the case be properly chosen, and that it be administered with certain rules and precautions. M. Rodet prefers the gummy extract to any other preparation, and always commences with small quantities (as 5 or 10 centigrammes), (a) in order to ascertain whether the patient will bear the remedy well. This quantity must be increased gradually, and somewhat rapidly, as every second or third day; for, when the increase is made too slowly, the effect is far less satisfactory. Not only must the dose be increased at short intervals, but also somewhat suddenly, as the economy has not then time to become habituated to the action of the remedy, which then exerts upon it more rapid and more complete modifications. Such increase must be continued until the therapeutical effect is produced. When the ulcers are covered with granulations, and tend to cicatrisation on every side, further increase is uncalled for; and, when the sore has taken on the aspect of a simple ulcer, we pursue a retrograde course, diminishing the quantity more or less rapidly until complete cicatrization is obtained, when the opium must be left off.

If some obstacle impedes the progress of cicatrization, the opium does not operate against this, which has to be removed by other means; and the neglect of this precaution may lead to the loss of much time, and to the taking of large unnecessary quantities of opium. The opium must not be given in too divided doses, as, if the stomach be kept too constantly under its action, digestion is interfered with. The entire daily quantity should be taken at two doses, morning and evening, leaving a sufficient space of time after meals to secure the completion of the digestive process before administering it. If this is not attended to, indigestion, accompanied by nausea, vomiting, diarrhœa, sweating, prostration, or cephalalgia, &c., comes on; compelling a temporary cessation of the remedy, and reacting unfavourably on the ulcer. Sometimes, notwithstanding this precaution, the stomach becomes fatigued, and digestion is indolent and accompanied by nausea, This inconvenience is easily avoided by recommending the patients to take light wine with their meals, proportionate to the quantity of opium employed. Thus, suppose the quantity of opium taken daily, amounts to 15 grains or thereabouts, from a pint to a quart of wine should be allowed. The wine not only corroborates the functions of the stomach, but exerts analogous effects on other organs. Thus constipation, so common a consequence of taking opium, is almost certainly obviated by this means, and an excess of sleep is quite exceptional. The wine is, indeed, an indispensable corrective of opium when given in large doses. If, in spite of all precautions, the head becomes heavy or painful, the conjunctiva injected, or other signs of cerebral congestion appear, the opium must be at once left off, mustard poultices applied to the limbs, and the question of leeching the anus or of general bleeding taken into consideration. If diarrhœa occurs, which is rare when wine is given with the opium, it is usually obstinate, but, refusing to yield to astringents, it does so to ipecachuana given in emetic but divided doses.

As under the employment of the opium in these cases, the general health becomes rapidly meliorated, it is evident that it exerts a powerful action upon the entire economy. M. Rodet furnishes the details of two of his cases. In the first of these, the daily quantity of 10 centigrammes of opium began with on November 9, was gradually augmented to 80 on December 6, and to 90 on January 22, thence descending again to 60 on February 3. In the other the quantity of 10 centigrammes, began with on January 19, was raised to 80 on March 21, and then diminished by 5 centigrammes every 5 days; but relapse occurring in this patient, we find him taking from 40 to 60 centigrammes during November.

Bull. de Therap. XLIX, p. 529-541.

(a) A centigramme is 1-7th of a grain.

GENERAL CORRESPONDENCE.

VOMITING IN POISONING BY STRYCHNIA.

[To the Editor of the Medical Times and Gazette.]

Sir,—The accompanying letter will explain itself. It was addressed to the Attorney-General, while the case for the prosecution of Palmer was going on at the Old Bailey. If you agree with me that every well attested fact bearing on the medico-legal proofs of poisoning by strychnia is public property, you will, I trust, give this communication a place in your columns. I am, &c. A. P. Stewart.

August 9, 1856.

74, Grosvenor-street, May 23, 1856.

Sir,—I have observed with astonishment, in to-day's *Times*, the statement by Dr. Letheby (a), that the occurrence of vomiting is inconsistent with the idea of strychnia having been administered to Cook. I have referred to my case-books, and find that on the 1st of May, 1855, a patient of the name of John Ingram, was admitted under my care in the Middlesex Hospital, having that morning attempted self-destruction by chewing an entire nux vomica. The report taken at the time is as follows:—"Frequent retching before admission, with discharge of a dark and bitter substance. Was brought here at 1 p.m., suffering from severe spasms in the præcordia, and irregular spasmodic movements of legs, with anæsthesia, affecting whole of lower extremities, and a sensation as if the tongue were half cut across, or tightly tied with a piece of string. Pulse 90, small. Heart's action now very feeble. No impulse. Pain at pit of stomach, and in both hypochondria, apparently from constriction of diaphragm, severe during forenoon, but now (2·30 p.m.) considerably less. Excessive tension of head from time to time. Manner occasionally wild and agitated. Tremor and occasional subsultus of hands." N.B. His habits were intemperate, and he had been having a debauch the night before—answering very exactly to the conditions in which Cook seems to have been placed.

But I do not rely on this case alone. I have for a number of years been in the habit of employing nux vomica as a most valuable remedial agent in cases of indigestion from want of tone of the stomach. For some time I used only the tincture, considering the powdered nux vomica a very inelegant and ineligible way of administering the medicine. Since 1851, however, at the instance of my friend Dr. Bigbie, of Edinburgh, I have employed the powder in preference to any other preparation of the drug—at first in five grain doses. Some cases occurring in which it brought on severe vomiting and retching, I diminished the dose to three grains; and having occasion to order it for a lady whose stomach was very irritable, I did not venture on more than two grains. Even this dose brought on a most violent and intractable fit of vomiting, which lasted for a number of hours. Even one grain occasioned spasm of the stomach and nausea, and it was not till I reduced the dose to half a grain that I obtained the remedial action of the drug. In another case of a young lady, the stomach could not bear more than a quarter of a grain of the extract. I look upon vomiting not only as not inconsistent with, but as one of the most frequent effects of, the administration of this vegetable poison. I am, &c.

The Attorney General. A. P. Stewart.

(a) The same statement was made by other witnesses for the defence.

THE LATE RETROGRADE MOVEMENT AT THE ROYAL MEDICAL BENEVOLENT COLLEGE.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have been induced to address the following letter to the visitor of the Royal Medical Benevolent College, not out of any factious opposition to the Council, who doubtless are entitled to respect, but because it appears to me that an important law has been hastily and improperly altered at a public meeting, convened by *advertisement only*, the Governors not possessing the usual appeal to a second meeting.

A large number of those most interested were in perfect ignorance of the proceedings, and a still larger number were unable to attend; yet although several Governors desired that the Resolution proposed by the Council should be postponed

for further consideration, it was, as I think, ungenerously pressed and carried. It will be well that the Profession should cautiously avoid any step which might retard the progress of this noble Institution; but nevertheless it appears just, that public attention should be called to the important change which has taken place, in order that the Governors may, if they think fit, either petition the Visitor not to sanction the alteration in Rule 30, or else call an extraordinary general meeting to re-establish it. Trusting to your impartiality for the insertion of the letter alluded to, I am, &c.

W. A. N. Cattlin, F.R.C.S. Eng.

9, Sebbons Buildings, Islington, August 12, 1856.

To the Right Reverend the Lord Bishop of Winchester.

My Lord,—At a meeting of the Governors of the Royal Medical Benevolent College, held on the 11th inst., convened by advertisement only, the following Resolution, seriously altering the fundamental rule of the abovenamed Institution, was carried:—

"That the annual amount charged for each exhibitor, exclusive of any payment in respect of remaining at the College during the vacation, shall for the future be the sum of £40, payable in advance by three equal payments on or before the commencement of each term, viz., Hilary, Easter, and Michaelmas."

In the early prospectuses of the College, a good education was offered to the sons of the less wealthy members of the Medical Profession at the cost of £25 per annum, and a large amount of public money was raised upon the faith that such intention would be carried out. Subsequently it was made a law of the college that the annual payment for such advantage should be £30. By the Resolution just passed the sum has been raised to £40, and the public has no guarantee that it will not be greatly increased. Thus the parents of 120 exhibitioners have suddenly been called upon either to remove their children or else submit to a demand which they had no right to expect, or for which they may be wholly unprepared. Children who may have been provided for under wills, in accordance with former regulations of the College, can no longer be admitted, and the School which was manifestly intended as a boon to the less wealthy members of the Medical Profession, will become an advantage only to the rich. Upon reference to the 27th section of the Act of Parliament relating to the College, your Lordship will observe, that, whatever may be the magnitude of the change proposed in any law, it is only necessary to carry a resolution at one general meeting, and it can be immediately enforced, upon obtaining the sanction of the Visitor of the College for the time being. Your Lordship, as Visitor, constitutes the only court of appeal, and I therefore venture, upon public grounds, respectfully to ask your Lordship to withhold your sanction to any alteration in Law 30, which will deprive the Exhibitioners of one-fourth of their present privileges. In conclusion, my Lord, I humbly submit that one of the chief objects of the Royal Medical Benevolent College was and is to afford a cheap but sound education to its Exhibitioners, and that no advantage, which the public had a right to expect would be carried out with good faith, should be hastily withdrawn, especially at a small meeting of Governors, not even convened by a special summons to each, in accordance with the spirit of the 27th section of the Act.

I have the honour to be,

My Lord Bishop,

Your Lordship's most obedient servant,

Wm. A. N. Cattlin.

9, Sebbons Buildings, Islington, August 12, 1856.

TARTAR EMETIC IN CROUP.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your number for July 5, appeared a communication from Dr. Elliotson, advocating the use of heroic doses of tartar emetic in the inflammatory croup of infants. I have waited until now expecting to see some adequate notice taken of so remarkable a letter, my own impression, founded on fifteen years' extensive practice among children, being that if such views are carried out by the Union Surgeons of England, the deaths from croup and diseases of the air-passages, will be immensely increased. Surely, if any fact in medicine is well established by fatal experience, it is that antimony, like opium, must be either discarded or used with excessive caution among infants. I should myself be sorry to witness the tetanic symptoms, caused in a child 14 months old, by 27 grains of tartar emetic given in three days, such symptoms would in most cases end, I feel sure, in death.

I do not believe twenty cases of inflammatory croup treated homœopathically, or left to themselves, would end more fatally than twenty cases so treated, even if they had the advantage of not having croup as well as their medicine to contend with. I observe that, at about the same date, Dr. Elliotson gave evidence in the case of the Medical attendant at Surrey Asylum, "that the patient, to the best of his belief, died of the combined effects of a shower-bath and 1½ grain of tartar emetic;" so that, as a *reductio ad absurdum*, 1½ grain half kills a strong man, while 27 grains in three days save the life of a 14 months old child. I respect the great experience of Dr. Elliotson; but the landmarks of Medicine must not be speculatively removed; nor without a great mass of authority must the comparatively safe ipecacuanha be replaced by antimony, one of the most potent of sedative poisons.

On so important a subject I should like to read the opinions of Mr. Hood and other eminent authorities on the diseases of infants. I am, &c.

Tewkesbury, August 13, 1856. F. J. Prior.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the Meeting of the Court of Examiners on the 1st inst.:—

Aickin, William, Belfast.
Archer, Samuel, Liverpool.
Cash, Josiah, Matlock.
Down, Henry Wilcox, Glastonbury.
Hayward, William Henry, Birmingham.
Jones, John Thomas, Ruthin, Denbighshire.
Kelly, Hubert Edmund, Pinner, Middlesex.
Morris, John Thomas, Froxfield, Wilts.
Perrin, William Jackson, Stafford.
Pitman, Edward Hanbury, Eastbourne, Sussex.
Roche, William, Cork.
Whitney, James Leech, Cork.

DEATHS.

Leech.—August 6, at the residence of his brother, Upper Seymour-street, London, John Leech, Esq., aged 44, M.B.C.S.I., from a very painful affection of the liver, from which he had suffered, more or less, during the last six years. Mr. Leech was attached to the Liverpool Dispensaries, either as Assisfant House-Surgeon or as House-Surgeon, for a period of ten years. During this lengthened period of servitude, Mr. Leech was most zealous and indefatigable in the discharge of his arduous duties, and was much beloved by the patients, and esteemed by the managers. The illness which has proved fatal to him became developed during his last years of service, and was, undoubtedly, in part brought on by the extreme fatigue and anxiety of mind that he had undergone.

Pearce.—August 7, at 17, Melton-terrace, Wandsworth-road, Mr. Stephen Harvey Pearce, Medical Student of Guy's Hospital, aged 21.

APPOINTMENTS.

St. Mary's Hospital Medical School.—Mr. Blenkins has been appointed one of the Lecturers on Anatomy, and Mr. George Green Gascoyen, Demonstrator of Anatomy in this school.

Dr. Andrew Smith.—We understand that the Royal College of Surgeons of Edinburgh, at a meeting of the Corporation on the 2nd instant, unanimously elected Dr. Andrew Smith, Director General of the Army and Ordnance Medical Department, an Honorary Fellow of the College. The following is a copy of the letter addressed by the President of the College to Dr. Smith, intimating the resolution of the College:—"Dr. Andrew Smith, Director General of the Army Medi-

eal Department. Royal College of Surgeons of Edinburgh, 5th August, 1856. Sir,—It is with much pleasure that I discharge the duty which has devolved upon me, as President of the Royal College of Surgeons of Edinburgh, viz.: that of intimating to you your unanimous election as an Honorary Fellow of the College, which took place on the 2nd instant. This is an honour which is very rarely bestowed, and only for high professional acquirements or distinguished public services. During the late war you have been placed in a position of great responsibility—great anxiety and great labour—called upon, at short notice, at the termination of a long peace, to provide for the supply of men and material for the Medical Service of a large army acting at a distance—surrounded by difficulties, almost, if not altogether unparalleled; with insufficient resources at your command—exposed to much unmerited obloquy—maligned by a portion of the public press—you were not discouraged, much less dismayed, but continued firmly, perseveringly, and efficiently to discharge the duties of your high office in such a manner as to promote the health of our brave troops, and to alleviate their unavoidable sufferings on the field of battle, in the hospital, and in the camp. Such an administration of the Medical department entitles you to the gratitude of your country. This College, anxious to testify their approbation of your conduct in trying circumstances, and feeling that it is right that public men who have conscientiously and successfully discharged their duties as they consider that you have done, should receive honour at the hands of those best qualified to judge in the matter, viz., their Professional brethren, have resolved to elect you one of their Honorary Fellows; and they think that you will not value the honour the less if they express their wish that it should be considered not only as a testimonial to your own merits, but also to those of the Medical Officers of the army, who have, during the last war approved themselves not only skilful and humane, but brave and enterprising, and in all respects worthy of the confidence of the army, as well as of the country.—I have the honour to be, Sir, your most obedient servant, Andrew Wood, M.D., President, Royal College of Surgeons, Edinburgh.

Royal Medical Benevolent College.—We have pleasure in stating that two Sermons were preached in aid of the funds of this Institution on Sunday last, in St. John's Church, Cheltenham, by the Rev. George Roberts, who most eloquently alluded to the many claims which the Medical Profession had on the public in relation to the College; his powerful appeal was most liberally responded to on both occasions. We hope that our Medical brethren will not lose any opportunity that may occur, to induce other clergymen to follow this noble example.

The Metropolitan Association of Medical Officers of Health met at the Offices of the General Board on the 6th inst. Dr. R. D. Thomson, in the Chair. A report was read from a Committee appointed to inquire into the sale of unwholesome meat, the means of recognising it, and the measures recommended to check its very extensive sale. The report was ordered to be printed, and a copy of it placed in the hands of every Sanitary Inspector in London, as a guide to him in the discharge of some very important part of his duties. The Association nominated two of their number, Dr. Sanderson and Dr. Hillier, to represent them at the International Congress, to be held in Brussels next month, on Sanitary and Economic Reform. Plans for improved self-supporting public urinals and water-closets were submitted to the Society by Mr. Austen, Engineer. The Meeting, after transacting some other business, adjourned till the 8th of October.

Opening of the New Sanatorium at Highgate.—This establishment, which is intended for the reception of sick persons of the upper and middle classes, and is situated in a beautiful position at Fortis-green, near Highgate, was opened on Tuesday evening by a dinner, which was attended by several of the leading members of the Medical Profession resident in London. Dr. Forbes Winslow had promised to preside, but he was prevented from attending by a domestic calamity, the nature of which has appeared in the Journals, and Dr. Little, of the London Hospital, took the chair at a short notice. Among the gentlemen present were Professor Fergusson, Mr. John Adams, Mr. Ronald Martin, Mr. Critchett, Sir James Eyre, Mr. Erasmus Wilson, Dr. Henry Bennett, Dr. Tyler Smith, Dr. Semple, Dr. Hassall, Dr. Wynter, Mr. Erichsen, Mr. Thomas Wakley, jun., and other members of the Profession. The room in which the dinner was held, and which is to be the future *salle à manger*, is an elegant apartment, looking over a beautiful country. The usual loyal and Medical toasts were given by the Chairman, after which that gentleman gave the toast of the evening, which was, "Prosperity to the New Sanatorium," coupling with it the name of the founder, Mr. Jackson. In so doing, he said, "The idea of the establishment originated with Mr. Jackson, a gentleman of fortune. It is intended to supply a great public want, and Mr. Jackson had, by a large expenditure, brought his philanthropic object to that state of perfection to which they could all bear witness that day. It was admitted, that the wealthier classes of society, owing to the defective arrangements in their establishments, and the inexperience of their domestics in the requirements of the sick-room, often, during the hours of affliction, did not receive the help which was so generously accorded by a liberal public to even the destitute persons received into our public hospitals. It was the object of the founder to combine under one roof all possible public and private appliances for the treatment of the sick—indeed all that could be found in the largest hospitals, with every requisite of a first-class mansion, and the most perfect modern hotels. The management was to be upon the most liberal scale. Any medical practitioner could place a patient to reside in the establishment, and there would be found all the therapeutic and sanitary aid necessary for carrying out measures for the restoration to health. Practitioners now present could testify to the great want of such an establishment, especially in convalescent cases. The chairman observed at some length on the nature of the undertaking; and stated that he believed the Sanatorium would have a resident medical officer always on the spot, a carefully appointed dispensary, experienced nurses and attendants, a most extensive suite of baths, together with horses and carriages to convey the patients to their medical attendants in town. The great additional advantages of healthy situation, pure air, for which this suburb of London is so reputed, and its easy distance from the Metropolis—seemed to insure its success. The company separated soon after eleven o'clock, after spending a very delightful evening. The weather was most propitious, and a good opportunity was afforded of perambulating the grounds, which are placed upon a declivity, thus affording a competent outfall for drainage, and ensuring dryness of soil. The bathing department of the establishment is not yet quite completed, but some of the baths are now open, and it is intended to introduce medicated baths as occasion may require, under medical advice, and in combination with strictly medical treatment.

Death of Isaac Weld, Esq., Dublin.—This gentleman died at Ravenswell, Bray, on Monday week. Through a long life he had been identified with the progress of scientific investigation and the useful arts, in this, his native country. As honorary secretary to the Royal Dublin Society, and as its vice-president, his constant labour and generous efforts for above half a century were highly appreciated in Ireland, and known favourably abroad.

Royal Botanic Society.—This Society held their Anniversary Meeting on Monday. The Council, in their report, state that the Society is prosperous; that the debt, which in 1849 amounted to £18,800, was now reduced to £11,675. The number of Fellows elected in the past year was 154, so, deducting deaths, there are 2,107 fellows and members on the list; 24,664 exhibition tickets were sold in the season. Artists and students from King's College, the Metropolitan School of Arts, and Medical Schools, to the number of 52, had been admitted, and upwards of 13,000 living specimens supplied to Professors for the illustration of their lectures. Prince Albert has accepted the office of President. It appears from a statement of the accounts, that the total receipts for the year ending July 15, 1856, were £8,869, and, after deducting payments, etc., of various kinds, there was a balance in hand at that date of £2,129 15*s.* 2*d.*

Academy of Science at Montpellier.—The Academy offers for 1857 a prize of 400 francs for the best essay written in French or Latin upon the subject "The Medico-Chirurgical Study of Uterine Deviations." For 1858 a prize of 500 francs is offered for the best essay on the following theme: "The Relations between Alimentation and Respiration. Are there any elements deserving the name of respiratory? In case of the affirmative, determine their nature and pursue their transformations from the period of their introduction into the digestive passages, to the remotest combinations that take place

in the respiratory act." The essays are to be addressed to M. Rousset, Secretary, 13, Rue de Courrier, Montpellier.

The Lord Chancellor has recently appointed Edward Copeman, Esq., M.D., to the Commission of the Peace for the City and County of Norwich.

It is stated that most of the German Surgeons who entered the service of Russia during the late war are about to return to Germany,—the Russian Government not granting them the advantages which they had been led to expect.

Cholera in London.—As will be seen in our "Mortality Notabilia," there were 28 cases of cholera which ended fatally last week. Their general duration points to the disease as being the common "summer" type. The shortest period of attack was 12 hours, and the longest 11 days, the latter being returned as cholera infantum, in a girl 2 years of age. Four of the cases had a duration of 7 days.

The Cholera.—On Tuesday the Board of Health issued orders throughout the whole of the metropolitan parishes to adopt the most stringent measures for the protection of the public health.

The Cholera is raging fearfully at Moscow, which is said to be the true cause for the postponement of the Czar's Coronation.

Cholera in Portugal and Madeira.—Lisbon letters speak of cholera as still continuing its ravages in Lisbon and through the provinces. Peniche is now declared infected. The French screw liner, Prince Jerome, has lost several men from this disease and typhus fever. The intelligence from Madeira is very disastrous. Cholera broke out at sea among some Portuguese troops that left Lisbon on the 20th of June, and when they landed at Funchal a fair was being held, the troops mixed with the inhabitants, and cholera broke out among the latter. When the Avon left Madeira on the 3rd of August there had been 5000 cases of cholera and 1500 deaths among the population of Funchal, which numbered only 28,000. The panic at Funchal was terrible; all business was suspended, the shops were closed, and every family isolated itself. The dead lay unburied in the cemetery, and fires were kindled there to mitigate the evil effects arising from the putrefaction of dead bodies. The Government at length got twelve men to dig graves, and six of them literally dug their own, for they died almost immediately, and were buried in the graves they had made for others. Only one Englishman, an hotel-keeper, had died of it. Seventy English escaped from Madeira in the Avon, and these were all the packet could accommodate. There were about two or three hundred left; but, fortunately, this is not the season for English people to be at Madeira.

Deaths from Coup de Soleil.—On Monday three men engaged on the Woodbridge Railway, in a deep cutting, were seized with what appeared to those engaged with them fits of apoplexy, and assistance was immediately rendered. The men were removed as soon as possible in a cart, but in a short time two of them expired, while the third gradually got better. He describes the sensation as a heavy giddiness, resembling drunkenness, with great oppression on the brain.

Old Age.—Fifty-four persons (an unusual number) of 80 years of age and upwards died during the past week; of this number 4 females attained the advanced ages of 90, 91, 93, and 94 years, and a carpenter, who died at Mile-end New Town, had reached his 96th birthday.

The Vine Disease progresses in Spain. In the district of the cities of Jerez and Port St. Mary, there is scarcely a vineyard free from the devastator "Oidium Tukerii."

Mortality in Scotland.—The following is the return of the births and deaths in the eight principal towns of Scotland for the month of June, 1856. During the month of June there were registered in the eight principal towns of Scotland 2881 births, of which 1504 were males, and 1377 females; 1690 deaths, of which 851 were males, and 839 females. Allowing for increase of population, this would give at the rate of one birth annually in every 24, and one death in every 42. Of the 1690 deaths in the eight towns, 770, or 45 per cent., were under five years of age. The proportion of deaths under 5 years of age in the different towns was, in Perth, 29 per cent.; Aberdeen and Paisley, each 36 per cent.; Greenock, 41; Edinburgh, 42; Leith, 46; Glasgow, 47; and Dundee, no less than 58 per cent. The deaths from the zymotic (epidemic) class of diseases amounted, in the eight towns, to 481; thus constituting 28 per cent. of the total mortality. The presence or absence of epidemics caused this proportion to vary greatly in the different towns. Thus, the deaths from the zymotic class in Aberdeen amounted to only 15 per cent. of the total mortality; in Perth the proportion was 24 per cent.; in Edinburgh, 26; in Glasgow and Paisley, 27; in Leith, 37; in Greenock, 39; and in Dundee, 41 per cent. 34 deaths have been registered in the eight towns as caused by small-pox, or about 2 per cent. of the total mortality. In proportion to the population, Aberdeen and Paisley have suffered most from this disease. In Edinburgh, the disease chiefly prevails in the Canongate Registration District. The disease is subsiding in Glasgow, and is rapidly disappearing in Dundee. 82 deaths from measles were registered in the eight towns during June. Of these, no fewer than 44 occurred in Dundee alone; thus constituting, in that town, nearly 26 per cent. of the total mortality. Measles, therefore, still continues of that fatal type which, as remarked in the Report for April, it seems invariably to assume when it follows epidemic small-pox. Leith and Edinburgh are almost the only other towns where this disease is prevalent; but the disease is of a much milder type than at Dundee. Scarlet fever has cut off 55 persons during June,—Leith, Greenock, and Edinburgh being the towns in which it at present prevails. In May, 17 deaths from this disease were registered at Leith; but 19 deaths, or 23 per cent. of the total mortality, were registered during June, the disease still presenting the character of a virulent epidemic. The proportion of deaths from this disease was 7 per cent. in Greenock, and 5 per cent. in Edinburgh. Hooping cough proved the most fatal of the epidemics during June, causing 119 deaths, or 7 per cent. of the total mortality. Of the towns, Perth, Glasgow, Dundee, and Greenock suffered most in proportion to their population,—the towns being placed in the order of greatest mortality from the disease. 72 deaths from typhus fever were registered in the eight towns, being in the proportion of 4 per cent. of the total mortality. In Greenock, the proportion was so high as 10 per cent. of the deaths; in Glasgow, 4 per cent.; but trifling in the other towns. The more genial weather of June has caused the mortality from diseases of the respiratory organs (not including consumption) to fall from 249, which it was in May, to 182, or nearly one-half. The mortality of consumption appears not to be materially affected by the weather, the deaths from this complaint, in the eight towns, having been 248 in April, 252 in May, and 246 in June, though the mean temperature of the towns, in April, was 44°·8, in May 49°·2, and in June, 54°·8. The mean barometric pressure during June, reduced to 32°, and to the sea-level, was, at Edinburgh, 29·913 inches; at Aberdeen, 29·879; at Greenock, 29·930; and at Perth, 29·916. The range was small during the month, averaging only 0·739 of an inch at the four town stations. The mean temperature, as indicated by the self-registering thermometer, was 56·2° at Edinburgh, 54·0° at Aberdeen, 53·5° at Greenock, and 54·9° at Perth. The range of temperature, however, varied greatly at the different stations, being from 43·5°, the lowest, to 73·6°, the highest, at Edinburgh; from 40° to 79·4° at Aberdeen; from 40° to 66° at Greenock; and from 38°½ to 76° at Perth. The mean daily range of temperature was 12·8° at Edinburgh, 14·6 at Aberdeen, 13·5° at Greenock, and 16·7° at Perth. The daily and monthly variations of temperature are, therefore, much greater at Perth than at any of the other stations. With the exception of Greenock, the quantity of rain was pretty uniform at the stations; being, at Edinburgh, 3·12 inches; at Aberdeen, 3·21 inches; and at Perth, 3·68 inches; but at Greenock the fall was just double this amount, being 7·30 inches during the month. As a natural consequence, the degree of humidity of the air was, at Greenock, 79 (complete saturation being reckoned 100); while at Edinburgh the degree of humidity was 72, and at Aberdeen only 70. The prevalent winds were from the west and south-west.

Mortality Notabilia.—The high range of temperature which has prevailed during the last fortnight has had a somewhat unfavourable effect on the public health. The number of deaths registered in London in the week ending Saturday, August 9, was 1232, which exceeds that of the week immediately preceding by 207, though it falls short by 96 deaths of the corrected average of the corresponding week of the last ten years. Summer cholera, infantile cholera, and choleraic diarrhœa, proved fatal to 28 persons; of this number 21 were

ORIGINAL LECTURES.

LECTURES
ON THE
VARIETIES OF CONTINUED FEVER AND THEIR DISCRIMINATION.

DELIVERED AT

St. Thomas's Hospital.

By THOMAS B. PEACOCK, M.D.,
Assistant-Physician to St. Thomas's Hospital, etc.

Lecture II.

TYPHOID FEVER.

In my former lectures I spoke of the several varieties of fever which are met with in this metropolis, and dwelt more particularly upon the first of those forms—typhus—a disease which, you will recollect, I stated was characterised by its dependence on contagion, by its more definite course, by the peculiar form of the eruption which appears upon the skin, and by the absence of any fixed or certain changes in the solid structures after death. I mentioned that ordinarily the attack commenced somewhat suddenly, that the prostration of strength is usually so rapid that the patient applies for admission into the Hospital at an early period, that the disease follows a regular course, terminates in the restoration of health or in death, when uncomplicated, at tolerably definite periods, and is not liable to be prolonged by relapses. I now propose to describe the second form of fever—Typhoid—which differs from the former, in a more or less marked degree, in all these particulars.

Course and Progress of Typhoid..—You will generally find that a patient affected with typhoid fever, has been indisposed for some time, as from seven to fourteen days, before the symptoms become so urgent as to induce him to apply for admission into a Hospital. He is generally seized with slight febrile symptoms, heats and flushes, prostration of strength, inaptitude for mental exertion, nausea or vomiting and diarrhœa, and these symptoms gradually increase till he becomes so ill as to require medical advice. In other cases his first seizure is more violent, he is suddenly attacked with profuse diarrhœa; and in yet others he has a decided choleraic attack, with nausea, vomiting, diarrhœa, and gastrodynia. These symptoms may partially subside at the end of a day or two, to reappear with more violence after an interval of a week or more; and very generally when the attack has been at first slight and the progress of the disease gradual, there is an exacerbation a day or two before the time at which the patient applies for admission into Hospital.

When admitted, he generally complains of the usual febrile symptoms, pains in the head, back, and loins, and general soreness of the surface, the skin being at the same time moist. Sometimes these pains in the limbs are so severe, the affection rather resembles a subacute attack of rheumatic fever. Generally, however, the skin is dry and hot, and the pains, after a few days, become less severe, or the patient is less conscious and alive to suffering. There is generally considerable prostration of strength. The pulse is usually moderately quick, 90 to 100, and of fair power. The tongue is covered with a thick, whity-brown fur, and rather dry. There is entire loss of appetite, and sometimes nausea or vomiting; and some gurgling can be produced by palpation in the right iliac region. The bowels are usually somewhat relaxed, being moved two or three times daily, and the motions are generally fluid and offensive, and often there is much flatulence. There is also considerable general prostration; so that the patient requires when admitted, to be assisted upstairs and into bed, and there is general torpor of mind and restlessness; and not unfrequently at this time, he has more or less epistaxis. About the same period an eruption makes its appearance on the skin, generally first on the upper part of the abdomen and lower part of the thorax; and this, unlike that of typhus, consists of small, elevated, but not pointed, rose-coloured spots, which fade on pressure. The symptoms which have been mentioned gradually advance, the prostration of strength increases, the pulse becomes quicker, 110 to 120 in the minute, and feebler. The tongue becomes dry, is covered towards the root and over more or less of the dorsum, with a yellowish-brown fur and is morbidly red towards the tip and edges; and sordes form upon the teeth. The diarrhœa increases, and often becomes profuse, and the stools are dark-green coloured, offensive, and watery, and the abdomen is tumid, and often somewhat tender. The cerebral symptoms, also, become more marked; there is generally some deafness, with torpor of mind and tremor of the extremities, with usually great restlessness and delirium at night. The skin is warm, dry, and harsh, and the face is flushed. The spots continue to come out three, or four or more at a time during each day, or at intervals of two or three days.

In this state the patient may continue for a variable period of ten to fourteen days. At the end of this period there may be a slight amendment, the skin may become cool and moist, the diarrhœa may be checked, the pulse may become less frequent, and the patient may be convalescent from about the fifteenth to the twentieth day. In other cases, however, the prostration of strength increases, and the general symptoms are more intense. The stools are passed very frequently; the pulse becomes rapid and feeble; the torpor of mind, restlessness, delirium, and the tremor of the extremities are greater; the strength and intelligence gradually decline; the pulse becomes very feeble and rapid; and the patient either becomes more torpid or entirely comatose. If he recovers, it is only after a prolonged illness of twenty-five to thirty-five days, or even more. The amendment in such cases is gradual; and, in a large proportion of cases, whether severe or not, the return of moisture to the skin is accompanied by the appearance of an eruption of miliary vesicles in places.

Such may be considered a fair description of the ordinary uncomplicated cases of typhoid fever of greater or less severity; but during the progress of the disease in all its forms, even in the cases which appear of a mild and unimportant character, there is a peculiar tendency to the occurrence of serious complications. Thus the diarrhœa may become very profuse, and the stools may be almost constant, and may be passed involuntarily. There may be blood in the stools, and the abdomen may become very tumid and tense and tender, and active vomiting, and other symptoms of acute or subacute inflammation of the peritonæum may supervene. Inflammation may attack the brain and its membranes, and the usual symptoms of cerebral oppression may be replaced by those of active delirium with injected conjunctivæ and contracted pupils; or the slight tremor of the extremities and twitching of the tendons, and general torpor may increase, and the patient may have violent convulsions, lapsing into coma. In some cases the patients have very profuse epistaxis, or more frequently they pass very large quantities of blood by stool, or have hæmaturia, and occasionally suppression of urine.

The bronchitic symptoms, generally present to some extent in typhoid, may become very aggravated, there being more or less extensive acute capillary bronchitis or diphtheritic inflammation of the fauces and larynx, or pneumonia rapidly passing into gangrene of the lungs. Erysipelas may attack the head or face, or some other part of the body, or symptoms of general pyæmia may occur. Sloughs may form on the nates from pressure and contact with the secretions passed involuntarily from the bladder and rectum; or renal

inflammation, causing suppression of urine, and symptoms of uræmie poisoning may occur.

In other cases there is a peculiar tendency to relapse in this form of fever. After the patient has so far recovered as to be able to leave his bed, he may be suddenly seized with a recurrence of his former symptoms in a very violent form, generally with profuse diarrhœa and vomiting, and often with more or less of jaundice, and thus his illness may be protracted for ten or fifteen days. In yet other cases, after the patient has convalesced up to a certain point, he continues for a long period without making further progress towards cure, and suffering from constant diarrhœa, with symptoms of atonic or hectic fever. When convalescence has been established there is also a great liability to the occurrence of inflammation of the parenchymatous viscera and of the serous membrane, and frequently abscesses form in the cellular membrane, and so greatly protract recovery; and, lastly, when convalescence is fully established, you will not unfrequently find the symptoms of phthisis supervene, and patients fall rapidly into that disease.

Death, when it occurs in typhoid, may be occasioned either by the violence of the disease in its early stage, the patient becoming rapidly prostrated, and sinking into coma and convulsions; or, at variable periods of the disease, it may ensue from any of the causes which have been mentioned.

As in speaking of typhus I have given some statistical details, drawn from an analysis of cases recently treated by myself, I shall, for the purpose of comparison, do the same with typhoid.

Period of Admission.—Thus, as regards the periods at which the patients are admitted into the Hospital, I have mentioned that the time which elapses after the seizure before admission, is much longer than in cases of typhus. Of 70 cases, 19 were admitted on or before the 7th day from the commencement of indisposition, 32 at periods varying from the 7th to the 14th day, 11 from the 14th to the 21st day, and 8 at still later periods, extending to six and seven weeks. As, however, there may be some error in these last cases, I have calculated the average period of admission only from the former, and find that of the cases stated to have been admitted before the 21st day, the mean duration of illness before admission was eleven days. These facts sufficiently show the more gradual mode of accession of this form of fever.

Eruption.—The eruption in typhoid differs from that of typhus in its form, and in its period and mode of appearance and disappearance, and it is also a less constant symptom. Thus, of 71 cases, deducting 7, in which the eruption is not mentioned in the reports, and in all which it may probably be safely inferred to have either been absent, or not present in a marked form, and 2 in which the patients were admitted during convalescence, and 3 in which there were some spots observed but which were not characteristic, in 9 it was not present at any time during the progress of the disease. In 20 cases it was out at the period of the patients' admission into the Hospital, and in 39 was observed to make its first appearance. Of the former 20 cases the mean period of admission was the 11th day, and the earliest being admitted on the 6th day, and the latest two on the 3rd week, and one at six weeks. Of the 39 cases, in 5 the eruption appeared from the 7th to the 14th day, in 11, from the 14th to the 21st, in 9, from the 21st to the 28th, and in 2 at periods varying from one month to seven weeks; in one of these cases the eruption appeared four days after the patient's admission into the Hospital, the period of the disease not having been ascertained, and in two cases relapses occurred, and the patients, though presenting the characteristic symptoms of typhoid, had no eruption in the first attack, but displayed the usual spots during the relapse.

The eruption in cases of typhoid is always composed of elevated spots; but they are not pointed but rounded, and hence, from comparison with the form of a watch-glass, they have been termed lenticular. They are of a pale rose colour, and fade on pressure, and vary in size from about one to two lines. They are usually found on the upper part of the abdomen and lower part of the chest, and especially on the back; and, in the latter situation, they are often larger and redder, and sometimes, probably from the greater warmth, they there slightly vesicate or suppurate. They are sometimes, probably on the same account, found on the back when not to be seen elsewhere; or are more numerous there than in other parts. They vary in number; sometimes there are only four or five spots, in other cases they are numerous—forty to fifty or more. The spots usually come out in crops of four or five at a time, and there may be successive appearances each day for eight or ten days; in other cases the first spots partially or entirely disappear before others make their appearance; each spot usually remains three or four days. The whole period, however, during which the spots continue to appear and remain, varies much. In twelve cases observed during their whole course, the mean period during which any eruption existed on the skin was nine days. In one case the spots remained only four days; in another they continued to come out, and had not entirely disappeared till after seventeen days had elapsed.

Usually, the disappearance of the eruption is coincident with an improvement in the general symptoms; but convalescence may, from causes formerly referred to, be very much deferred. Thus, though in ten cases the disappearance of the eruption preceded convalescence, on an average, by fourteen days, in one case, the patient was regarded as convalescent on the day on which the last spots disappeared; in another, convalescence followed their disappearance in four, and in another in six, days; while, in two others, it was deferred till the twenty-fifth and thirty-fifth days after. With the disappearance of the eruption, an outbreak of miliary vesicles—sudamina, which I have described when speaking of typhus—very frequently appears. Sometimes this eruption is found shortly after the first appearance of the typhoid spots, or at an early period of the fever, and without, as well as with, the typhoid eruption. They are at first small, round, and shining; then become opaque and flatter; and, finally the fluid dries up and the cuticle separates, slight desquamation taking place. As I have before said, their appearance generally coincides with the outbreak of perspirations, especially local perspirations, as of the face; but, generally, the parts on which they are situated are dry and harsh. They may continue out for from three or four to ten or twelve days, and most commonly occur in very considerable numbers, in hot weather. Their situation, like the similar eruption in typhus, is chiefly in the iliac and infraclavicular regions, at the sides of the neck, and near the arm-pits. They do not possess much diagnostic value, being seen, under similar circumstances, in other febrile diseases, as in acute rheumatism, or in the colliquative sweating of phthisis; but, as they are much more frequent in typhoid than in typhus fever, they furnish an additional distinction between these two forms of disease. They occurred to a marked extent in twenty-two out of fifty-two cases of typhoid which I have analysed. Neither of the forms of eruption appear of importance in reference to the prognosis, or as indications of the probable result of the disease. Generally, however, I have observed that the cases in which there is a copious typhoid eruption are of a stethenic type, and terminate favourably; but in many of the cases, where there is no eruption at all, the disease is also mild; while in others, it is severe, and even proves fatal. The sudamina also occur in fatal cases; but, as this eruption generally appears towards the latter stages of the disease, it is less common in the cases which prove fatal than in those which recover. With the typhoid eruption there may also be sometimes seen spots which are truly petechial, not fading on pressure; but this is not frequent, and occurs when the patient is much prostrated, and the disease of a malignant type.

Other Symptoms—Duration—Mortality.—The appearance of the tongue varies much in cases of typhoid, usually in the marked form of the disease; it is found to be dry, and loaded with a yellowish-brown fur at the root and dorsum, and morbidly red at the tip and edges, with the papillæ projecting; often it is fissured or ulcerated; or morbidly red, and glazed. On the other hand, in some cases, it is throughout the whole course of the attack only covered with a whity-brown fur, and continues somewhat moist. The pulse is usually not more than 100 in the earlier periods of the attack, and often does not exceed 110 throughout; but in other cases, it becomes rapid, 130 to 140; it also generally retains more power than in typhus. The appearance of the patient labouring under typhoid is also much less depressed than that of a typhus patient. His face, instead of being sunken, has usually a bright flush on the cheeks; the skin is generally warm, and the circulation in the extremities is less languid; so that, except in the very last stages of the disease, or when there is some local pulmonary complication, the hands and feet do not become so cool and livid.

The symptoms referable to the alimentary canal are also, throughout the disease, more constantly present and more urgent than in typhus, and from the persistence of the intestinal affection, together with the tendency to local complications, and to the occurrence of relapses, the convalescence is much more protracted, and the residence of the patient in the Hospital is consequently much longer. Thus, of 51 cases of typhoid the mean duration of residence was 31 days. The difference which obtains in the period of residence in different cases is also much greater than in typhus: one of the above patients remained only 10 days, two 17 days, three 18 days, and two 19 days; while in three others the residence was prolonged to 64, 71, and 78 days. The same circumstances also render the prognosis in this form of disease, however mild the case may appear, always a doubtful one. In typhus, after the establishment of convalescence, the patient may with great confidence be expected to recover; but in typhoid the sources of danger which remain still necessitate great caution, as, even when convalescence seems fully confirmed, the most urgent symptoms may arise. I am not able to give satisfactory data as to the ordinary rate of mortality in the disease; for the cases which I have analyzed, being selected for their severity and for the marked forms which they present, give a much less favourable idea of the results of treatment than is correct. I find, however, that of 74 cases, deducting those in which death occurred from local inflammation in advanced convalescence, 14 proved fatal; or 1 in $5\frac{1}{14}$, or 18·9 per cent. Probably, of all the cases which occur in Hospital practice, the mortality, taking one period with another, is about 1 in 8 cases, or about 12 per cent.; but there is great difference in the ratio of mortality in cases of typhoid during different epidemics and at different seasons, and this difference is much more striking than in typhus. Sometimes all the cases which occur are of a mild and curable character, while at other periods the disease assumes a malignant and fatal type. The types, indeed, of typhoid fever differ remarkably at different periods. Thus, sometimes all the cases which occur will be found to present the usual eruption on the skin; at others the eruption will be comparatively rare. At one time sudamina will be of frequent occurrence; at others, you will only occasionally see them. Sometimes there will be a peculiar tendency to profuse sweating, at others the skin will be usually dry and harsh. Sometimes relapses will be of frequent occurrence, and at others jaundice and bilious vomiting, or severe rheumatic pains, will be frequent complications. The state of the tongue and the frequency of the pulse, and the tendency to diarrhœa, also manifest similar varieties. All the cases which occur may present only a whity-brown fur on the tongue, and it may be only slightly dry; or the tongue may be generally dry and brown, or morbidly red or fissured; or the pulse may rarely exceed the natural frequency, or it may be constantly found very quick. Diarrhœa may be at some times an urgent symptom in all cases; at others it may exist only to a slight degree.

I have said that typhoid probably originates in common causes, but that it may spread by contagion. We cannot so frequently trace the origin of cases of typhoid as those of typhus, but in a large proportion of those which occur you will find it arise in persons living or working in low, ill-drained localities or houses, and especially in persons working in under-ground cellars, or in the sewers, or in damp situations near the banks of rivers or canals; so that it appears to be produced by noxious exhalations arising in such situations, and probably by exhalations from decomposing animal matters. It is, however, generally believed that though it may arise from common causes, it is capable of spreading by contagion. Thus a series of cases is frequently sent in to the Hospital from the same house; the disease affects several members of the same family, or we find it appearing in schools, and affecting a large number of the children in succession;—the disease, under such circumstances, not occurring in all the cases at about the same time, but appearing in different persons at successive periods, as if its gradual diffusion was due to contagion. I have thus seen the disease travel from one house, through the population of a whole village. This certainly looks like contagion; but, on the other hand, though I have repeatedly known persons who have contracted fever in one house or locality, removed to other situations, I do not remember to have ever seen the disease spread to the attendants, or to patients in Hospitals, though typhoid cases are constantly treated in the wards with persons labouring under other diseases. From, however, the evidence communicated by others, there can be no doubt that the disease can be propagated by contagion, and the facts I name can only be regarded as showing that the contagion of typhoid is of a much milder character than that of typhus, and is more easily rendered innocuous by diffusion and free ventilation.

Typhoid is chiefly a disease of early life, and thus also it differs from typhus, which, you will remember, I stated affected all ages, but especially persons in middle age. Of Dr. Jenner's patients, the eldest was 36 years of age. Of 147 cases analyzed by M. Chomel, 6 patients only exceeded 40 years of age; and of 138 reported on by M. Louis, none were more than 39 years of age. Of 81 persons affected with the disease, of whose cases I have notes, 16 were under 15 years of age, 19 under 20, 34 under 30, 9 under 40 years of age, and 3 only had attained that age. The mean age of the whole of the patients was 21·6;—of the males 21, of the females 23 years.

The following cases offer well marked examples of typhoid fever terminating in recovery:—

Case 4.—*Typhoid fever, admitted on the 8th day of illness, and discharged cured on the 59th day from admission and the 66th from seizure.*—James Voss, aged 17, admitted into Jacob's Ward under my care on the 9th of October. He states that a week ago he was attacked with giddiness, shivering, loss of appetite, vomiting and general depression. These symptoms were accompanied by considerable diarrhœa, without pain from the first; some days he passed five or six loose motions, other days not more than two. Previous to this attack he seems to have been in good health. In this condition he has continued ever since.

October 10.—His expression of countenance is heavy and oppressed, his face flushed, skin hot and dry, his manner dull and unintelligent, tongue morbidly red at the tip, slightly furred at the sides; pulse 102, soft but compressible, there is some tremor of the extremities. There are two rose-coloured spots on the abdomen which disappear on pressure—he was not delirious in the night; respiration slightly harsh.

Mist. potassæ chlorat. c. dec. cinch. ℥j., 4tis horis.

Two glasses of wine daily; milk diet.

12th.—He says he feels better; he has slept pretty well, pulse 102, face less flushed, skin moist, tongue much cleaner and not so red at the tip, bowels open once, there are still two or three red spots.

13th.—Tongue moist, slightly dry and glazed at the centre, much cleaner, skin cool and perspiring, pulse 96, soft and compressible; he has some tremor of hands and occasional twitching; appearance improved though he expresses himself as no better; abdomen soft and free from tenderness; there are still a few spots, those on the abdomen are fading, bowels acted on once daily; has not been delirious, and has had no epistaxis.

17th.—He feels better, sleeps pretty well in the day-time, skin moist, bowels open twice in the 24 hours, no pain in the abdomen on firm pressure, tongue moist but more furred and slightly brownish, pulse 96.

℞ Mist. cinchonæ c. acid. ℥iss. quinæ disulph. gr. ij. quater die.

19th.—Is better, has still much tremor, pulse 96, tongue dry, red at the tip and edges, with a brownish fur in the middle, bowels open twice in the 24 hours, no pain on pressure of abdomen, complains of cough, slept pretty well last night.

20th.—Appearance much improved, face still somewhat flushed, tongue moist but still loaded with a whity-brown fur and morbidly red at the tip, pulse 100 soft and compressible, still some nervous twitchings about the hands, skin cooler and moist, no appearance of eruption on the skin, bowels open twice during the 24 hours; he has not been delirious since his admission, takes his food better. On auscultation there is some sonorous and sibilant rhonchus, but he does not expectorate.

21st.—There is less sibilant rhonchus; he has expectorated but slightly; tongue natural at the tip, but loaded elsewhere with a whity-brown fur, pulse quiet, bowels open twice in 24 hours, he slept very well last night, has still much tremor of hands.

24th.—Tongue much less coated, less flushed in the face—altogether looking better, pulse 88 soft and compressible, skin warm and moist, bowels open once in the 24 hours; there is apparently a fresh spot on the abdomen, the others have nearly disappeared; he takes his food fairly, sleeps well, and expresses himself as being better.

28th.—Has slept well, face not flushed, skin moderately warm, bowels open about once in the 24 hours, tongue still very loaded, natural at the tip and edges, pulse 100, appetite good, no remains of eruption.

31st.—He is looking much better, pulse of good volume, moderately quick, tongue covered with a thick white fur on the dorsum, red at the tip, skin cool, bowels open twice in the 24 hours, has taken food well.

November 3.—Tongue nearly clean, bowels open twice in the 24 hours, skin natural, pulse 108.

To have the meat diet.

10th.—He has gradually improved. Tongue cleaner but still red at the tip and covered with a brown fur on the dorsum, pulse 100 soft and compressible, skin comfortably warm and moist, bowels acted upon regularly once a day. To be allowed to get up.

From this time he steadily improved and was discharged cured on the 7th of December, on the 59th day from admission and the 66th from seizure.

Case 5.—Severe attack of typhoid fever admitted after a week's previous illness. Recovery and discharge the 61st day from admission.—Ann Webber, aged 40, admitted into Elizabeth Ward under my care on the 2nd of November. States that seven weeks ago she was attacked with cold chills; aching of limbs; nausea and headache. This continued for three weeks, and she got better, having been under medical treatment. A week after this she had an attack of diarrhœa, with nausea, but no cramps; for this she attended as an out-patient, and is quite free from it now. She appears extremely weak, and much prostrated; pulse 130; tongue moist, with some white fur on the dorsum; bowels open twice in the twenty-four hours. There is no pain on pressure on the abdomen.

Nov. 3.—She looks much less prostrate than yesterday. Tongue hard, dry, brown, and chapped; sordes on the teeth; there is much tremor of the hands and body generally; bowels acted upon five or six times, but not since ten o'clock this morning. She has been delirious. She has a semi-intelligent, oppressed countenance. Abdomen is tumid and tympanitic; there are some few spots on the abdomen, apparently typhoid.

Mist. cretæ co. ʒj., pot. sing. sed. liq. Mist. cinch. co. ʒiss., tinct. cinch. co. ʒss. ammon., s. carb. gr. v., tertiis hor. sumend. Brandy, 3 glasses.

4th.—Tongue hard, dry, brown, and loaded; pulse 130, small and feeble. She answers intelligently, though slowly. There are a few fresh spots out; bowels open once during the night; abdomen is still more tympanitic; has been delirious, but less so than the night before. She takes food well. Skin moderately warm and moist.

6th.—Tongue brown, loaded, and chapped; pulse not to be counted for the tremor; there were some fresh spots; was less delirious during the night; skin warm and moist. She takes food well. Not having made water the catheter was passed and about Oij. of urine were drawn off. The urine contained no albumen.

7th.—General appearance much improved; cheeks flushed; tongue less moist, and covered with a thick, brown fur; some sordes on the teeth. This afternoon she has passed water voluntarily, and knows when she is passing fæces; and is much more intelligent, though much more disposed to talk incoherently. Pulse 132; much less tremor of hands and twitching; skin cool and moist; abdomen tumid and tympanitic. There are still some elevated spots. Bowels not acted on yesterday, but twice to-day.

8th.—Pulse 130; face flushed; appears much more intelligent; less delirious during the night; bowels open once; has passed plenty of water voluntarily; tongue less loaded, dry and chapped. There are fresh spots out. She takes food well.

9th.—Face rather flushed; looks more intelligent; pulse 110; tongue dry and chapped, covered with a brownish fur; there are less sordes on the teeth; bowels open three times in the twenty-four hours. There are a few fresh spots out, and some of the old ones still continue out. No pain in abdomen on firm pressure. Skin warm and moist. Has slept well, and expresses herself as better.

10th.—Tongue dry and brown in the centre, but moist at the sides; still some tremor; pulse 132, small and feeble; skin cool and moist. She can turn round in bed. There are still some spots on the abdomen. Bowels open twice in the twenty-four hours. Makes water, but has difficulty in passing it. Wine, 2 glasses; brandy, 1 glass.

11th.—Tongue dry and brown in the centre, moist at the edges; bowels open four or five times during the night, but not since taking some mist. cretæ co. There are one or two fresh spots out on the abdomen.

13th.—Tongue dry and chapped, morbidly red at the tip, and covered with a brown fur; skin hot, and face flushed; pulse 126, very weak; bowels frequently moved. Talks rationally. Takes food well.

14th.—Bowels open two or three times in the day; passes water freely; abdomen is still very tympanitic; spots have not completely died away; teeth covered with sordes; tongue dry, brown, and moist at the edges; skin cool and moist; pulse 120, scarcely any tremor. Is quite rational; sleeps comfortably; there is still some tendency to talk. An abscess has formed on the finger, which has burst to-day.

16th.—Appearance improved; face less flushed; is much disposed to talk incoherently; tongue natural at the edges, loaded with a whity-brown fur on the dorsum, and dry; pulse 120; bowels still disturbed, requiring the brown mixture; teeth are free from sordes; there are a few fresh spots.

17th.—Tongue moister, chapped, and loaded with a whity-brown fur. Still is much disposed to talk. Pulse 120, there is some tremor; there is some swelling and redness on the right cheek-bone, which she is constantly rubbing; the abscess on the finger has discharged, and seems much better; abdomen is still tympanitic; spots marked are still out; there is a fresh one out; bowels acted upon twice daily. Wine, 3 glasses.

18th.—Tongue moist and loaded; pulse 116, soft and feeble; bowels open three times since yesterday. She complains of cough, and sonorous rhonchus is heard in all parts of the chest. There are a few fresh spots out; the other spots remain out. She takes food well; answers rationally, and is less disposed to talking. Appearance improved.

20th.—Pulse 100, rather stronger, soft and compressible; tongue moist and cleaner; bowels open twice a-day; cough is rather troublesome.

21st.—One spot still appears out after four days; the others have disappeared in three. The swelling of cheek-bone has disappeared. There is still some matter in the finger.

23rd.—Tongue much cleaner, though covered with a white, slightly brown fur; pulse 96; bowels open with house medicine; skin moist and warm; no fresh spots out; some are still out. Finger has not discharged since it was opened.

28th.—General appearance much improved. Tongue still somewhat dry, though improved; expression of countenance much more natural; some tremor of hands; bowels open only with ol. ric.; pulse 120, small and feeble; skin warm and moist.

Ol. jecoris aselli, ʒij. bis die. Mist. bis die. (A slice of meat or fish.)

30th.—Skin moist and warm; tongue covered with a whity fur, moist; pulse 90, feeble; abdomen not tympanitic. Talks rationally. Expresses herself as feeling much better, and appears to be so.

5th.—Tongue cleaning but slowly. Pulse 104; bowels open. She appears much improved.

13th.—Expresses herself as feeling stronger and better, and looks so. Tongue clean; pulse 90, soft and compressible; bowels open. Takes food well and sleeps well. Skin moist and warm.

19th.—Has now been up for about a week; is very unwilling to sit up; is much disposed to talk, and somewhat incoherently at times.

To take the ol. jecoris aselli and the medicine three times a-day.

Jan. 12, 1855.—Has been improving ever since the last notes were taken, and was presented as cured on the sixty-first day from her admission. The period of actual illness was forty-four days, but she had been previously indisposed for several weeks, and was detained in hospital for nearly a month after she was able to leave her bed, in consequence of prolonged debility.

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT OF THE DISEASES OF THE EAR.
DELIVERED AT
St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.,
Aural Surgeon to the Hospital, and Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

Lecture V.

EXTERNAL MEATUS—CERUMINOUS GLANDS—ACCUMULATION OF CERUMEN.

Gentlemen,—I proceed to-day to speak of the diseases of the ceruminous glands.

The Ceruminous Glands surround the outer half of the membranous meatus, with the exception of the portion situated within a line or two of the orifice. They are contained in the cellular tissue beneath the dermis, on the surface of which the ducts open. Kölliker has recently shown these glands to be modifications of the sudoriferous, and not of the sebaceous, glands, as was previously supposed. The cerumen secreted by these glands forms in the perfectly healthy ear, a band about half-an-inch in length, and half a line thick. This band should be of a consistence just sufficient to enable it to retain its position, at the same time that it can attract and keep attached to it the small particles of dust, etc., which float in the atmosphere, and prevent their accumulation on the surface or in the vicinity of the membrana tympani. Another function ascribed to the cerumen is that, by its bitter taste, it prevents the ingress of insects, and a third function is that, in some peculiar manner, it assists the power of hearing. Its principal use is doubtless the one first alluded to, viz.: to arrest and attract the particles of dust. It is possible that its bitterness may deter the entrance of insects; but there is no doubt in my own mind that the idea that it mechanically assists the other parts of the ear in collecting or conducting the sonorous vibrations to the labyrinth, in short, that it is of any use in the actual process of hearing, is quite erroneous. There is no doubt that its absence is very frequently accompanied by a diminution of the hearing power, but this absence appears rather to result from the sympathy which exists between these glands, and the more deep structures of the ear. Very often, as these deeper structures return to their normal state, the ceruminous glands again pour out a healthy secretion. The most convincing proof that the cerumen does not mechanically assist in the function of hearing is, that in many cases, when the ceruminous glands alone are affected, and from this cause their secretion is arrested, no diminution in the hearing power can be detected, even by the use of the most delicate tests; and cases must frequently occur to medical men where there has even been a long continued discharge from the surface of the dermis, no cerumen being secreted, and yet no diminution of the hearing power is observed. Again, it is well known that the entire removal of the ceruminous secretion does not impair the hearing power, and in no case of deafness has it been shown that the introduction of cerumen, or of any substance to supply its place, or even that the promotion of healthy cerumen under the influence of stimulants, has in the least degree improved the hearing. Considering the peculiar properties of soft cerumen, it must indeed be manifest that its function is rather to absorb superabundant sonorous undulations than to increase their intensity. The natural method whereby the cerumen, when it has performed its duties, is expelled from the ear, is the action upon the external meatus of the condyloid process of the lower jaw, during the movements of mastication and articulation. By these movements the cerumen is brought quite to the orifice of the meatus, whence it either falls out in small particles, or it is removed by the towel.

Diseases of the Ceruminous Glands.—The ceruminous glands sometimes pour out a too abundant secretion, which is of a light-brown colour and more soft than natural, or the secretion may be hard and of a dark colour; sometimes it is entirely absent. When soft and semi-liquid, it is generally found in young patients having a tendency to glandular enlargements, and in whom the dermis of the meatus is hypertrophied; thus, without any accumulation beyond that which adheres to the walls of the meatus, the cavity is nearly filled by cerumen. It is, however, much more common to find the cerumen harder than natural, and this hardened state prevents its free escape from the ear, and consequently gives rise to the affection which is so commonly met with, viz., accumulation of cerumen in the external meatus.

Collections of Cerumen.—Cerumen accumulates in the external meatus from two different causes, *one* being a primary affection of the ceruminous glands, *the other* being secondary, and symptomatic of some derangement of the deeper-seated cavities. Thus, in a large number of cases, the removal of an accumulation of cerumen is productive of immediate relief to the deafness, while in other cases the deafness is only partially or even not at all benefited by it. In order to ascertain the numerical relation between the cases of accumulation that are *cured*, and that are only *relieved* by the use of the syringe, I have arranged in a tabular form the results of one hundred consecutive cases that have occurred in my private practice.

Table showing the Effect on the Power of Hearing of the Removal of an Accumulation of Cerumen in 100 Cases.

Age.	Hearing Distance before Removal.*		Hearing Distance after Removal.	
	Right Ear.	Left Ear.	Right Ear.	Left Ear.
22	1 inch.	3 inches.	18 inches.	18 inches.
22	Normal; no cerumen	½ an inch.	Normal.	Normal.
32	7 inches.	Crack of nails.	12 inches.	7 inches.
70	Contact.	Contact.	Contact.	Contact.
33	½ an inch.	½ an inch.	Normal.	Normal.
35	2 feet.	⅔ an inch.	Normal.	Normal.
45	Contact.	⅓ an inch.	2 inches.	2 inches.
15	½ an inch.	3 inches.	Normal.	Normal.
44	Normal; no cerumen	½ an inch.	Normal.	Normal.
59	1 inch; no cernmen.	Crack of nails.	1 inch.	Crack of nails.
25	Crack of nails.	3 inches; no cernmen	1 inch.	3 inches.
18	4 inches.	½ an inch.	Normal.	Normal.
29	5 inches.	Normal; no cernmen	Normal.	Normal.
8	Contact.	Contact.	3 inches.	Contact.
74	½ an inch.	½ an inch.	½ an inch.	½ an inch.
49	6 inches.	6 inches.	6 inches.	6 inches.
53	Crack of nails.	2 inches; no cernmen	4 inches.	2 inches.
28	½ an inch.	Normal; no cerumen	Normal.	Normal.
26	1 inch.	⅔ an inch.	8 inches.	7 inches.
26	½ an inch.	2 inches.	Normal.	12 inches.
45	9 inches.	1 inch.	9 inches.	1 inch.
19	7 inches.	1 inch.	7 inches.	24 inches.
32	¼ of an inch.	½ an inch.	Normal.	Normal.
53	Normal.	½ an inch.	Normal.	Normal.
30	½ an inch.	10 inches.	6 inches.	Normal.
	2 inches.	1½ inch.	2 inches.	½ an inch.
41	18 inches.	5 inches.	18 inches.	8 inches.
65	Contact.	Contact.	2 inches.	2 inches.
27	Pressure.	Pressure.	½ an inch.	3 inches.
44	4 inches.	Pressure.	6 inches.	3 inches.
25	24 inches.	1 inch.	Normal.	3 inches.
40	Pressure.	Normal.	Normal.	—
65	Crack of nails.	Crack of nails.	2 inches.	Contact.
27	12 inches.	Contact.	Normal.	Normal.
27	18 inches; no cerumen	Pressure.	18 inches.	18 inches.
70	Pressure.	Pressure.	1 inch.	1 inch.
56	Normal.	Pressure.	Normal.	7 inches.
	2 inches.	2 feet.	Normal.	Normal.
20	2 inches.	2 inches; no cernmen	2 inches.	2 inches.
53	24 in.; no cerumen.	Contact.	24 inches.	12 inches.
38	Contact.	½ an inch.	Normal.	Normal.
7	2 inches.	Normal; no cerumen	24 inches.	Normal.
14	2 inches.	5 inches.	24 inches.	24 inches.
29	2 inches.	6 inches.	Normal.	12 inches.
40	4 inches.	Pressure.	8 inches.	5 inches.
14	Contact.	Normal; no cerumen	6 inches.	Normal.
35	7 inches.	½ an inch.	Normal.	Normal.
22	2 inches.	Contact.	24 inches.	Normal.
45	16 inches.	3 inches.	24 inches.	8 inches.
19	Normal; no cerumen	Contact.	Normal.	Normal.
28	Normal; no cerumen	Pressure.	Normal.	Normal.
	Normal; no cerumen	½ an inch.	Normal.	Normal.
46	¼ of an inch.	Pressure.	½ an inch.	½ an inch.
23	4 inches.	5 inches.	Normal.	Normal.
44	Pressure.	Pressure.	Normal.	Normal.
25	Normal; no cerumen	1 inch.	Normal.	Normal.
14	2 inches.	2 inches.	Normal.	Normal.
60	1 inch.	1 inch.	9 inches.	9 inches.
27	Normal.	½ an inch.	Normal.	½ an inch.
50	18 inches.	Pressure.	18 inches.	24 inches.
20	2 inches.	4 inches.	Normal.	Normal.
11	2 inches.	½ an inch.	8 inches.	8 inches.
50	2 inches.	Normal.	Normal.	Normal.
45	½ an inch.	½ an inch.	1 inch.	1 inch.
5	Crack of nails.	2 inches.	Crack of nails; no cerumen	4 inches.
35	10 inches.	2 inches.	Normal.	Normal.
28	1 inch.	24 inches.	24 inches.	24 inches.
41	Normal; no cernmen	Contact.	Normal.	24 inches.

* The hearing distance was ascertained by a watch, which is heard by a healthy ear at a distance of thirty-six inches.

Age.	Hearing Distance before Removal.		Hearing distance after Removal.	
	Right Ear.	Left Ear.	Right Ear.	Left Ear.
14	12 in. ; no cerumen.	2 inches.	12 inches.	24 inches.
24	Pressnre.	Pressnre.	Normal.	2 inches.
60	1 inch.	Contact.	1 inch.	Contact.
34	Normal; no cernmen	24 inches.	Normal.	Normal.
19	2 inches.	1 inch.	24 inches.	24 inches.
61	2 inches.	2 inches.	3 inches.	3 inches.
65	Crack of nails.	Crack of nails.	Crack of nails.	Crack of nails.
24	Contact.	2 inches.	Normal.	Normal.
40	Normal; no cernmen	Contact.	Normal.	8 inches.
60	Contact.	Crack of nails.	Contact.	Crack of nails.
56	Quite deaf; no crmn.	Contact.	Quite deaf.	6 inches.
21	Normal; no cerumen	6 inches.	Normal.	Normal.
40	6 inches; no cerumen	4 inches.	6 inches.	12 inches,
51	Normal; no cerumen	Contact.	Normal.	3 inches.
50	6 inches.	6 inches.	Normal.	Normal.
55	Crack of nails.	Contact; no cernmen	Contact.	Contact.
41	12 in. ; no cerumen.	Contact.	12 inches.	5 inches.
27	Normal; no cerumen	½ an inch.	Normal.	4 inches.
50	Normal ; no cernmen	Contact.	Normal.	1 inch.
46	2 inches.	½ an inch.	24 inches.	6 inches.
35	Normal; no cernmen	Pressure.	Normal.	12 inches.
45	3 inches.	3 inches.	3 inches.	3 inches.
74	Crack of nail.	2 inches.	3 inches.	6 inches.
49	½ an inch.	½ an inch.	4 inches.	4 inches.
57	½ an inch.	2 inches.	1 inch.	3 inches.
36	Crack of nails.	Crack of nails.	1 inch.	1 inch.
39	Pressure.	Crack of nails.	Normal.	Normal.
39	24 inches.	Contact.	Normal.	24 inches.
25	2 inches.	Normal; no cerumen	Normal.	Normal.
52	8 inches.	1 inch.	8 inches.	2 inches.
54	Normal; no cernmen	Contact.	Normal.	6 inches.
11	Contact.	Contact.	12 inches.	12 inches.

An analysis of the above one hundred cases shows the following to be the result of the examination of the two hundred ears :—

Ears restored to a normal condition . . .	60
Ears in which the hearing power was greatly improved	43
Ears in which the hearing power was only slightly improved	35
Ears in whieh the hearing power was the same *after* as *before* the removal of the cerumen .	27
Ears in which there was no wax, and in which the hearing power was normal, the opposite ear being affected	24
Ears in which there was no wax, but in which the hearing power was not perfect, the opposite ear being affected	11
	200

It thus appears that, of the 165 ears from which cerumen was removed, only 60 were cured; that, including the 43 cases which were much improved, there were 103 cases of great amelioration, while there were 62 ears that were either but slightly or not at all improved. Thus, out of the 165 ears from which a collection of cerumen was removed, there were 105 in which there was some other disease, the restoration of the hearing not being perfect. The presence of cerumen in the external meatus is symptomatic of several affections; among them may be noticed obstruction of the Eustachian tubes, or thickened condition of the tympanic mucous membrane, debility of the auditory nerve, anchylosis of the stapes, etc. It is, therefore, important that the Medical man should examine carefully every case after he has removed a collection of cerumen, and if he finds that the hearing power is not wholly restored, it is his duty to discover what other disease is present, and to attempt its relief.

The causes producing an accumulation of cerumen in cases not complicated with other diseases are—a narrow calibre of the meatus, the application of cold, the admixture of dust with the cerumen, and, not unfrequently, the practice of pushing into the ear the point of a towel, whereby the cerumen is pressed into a mass towards the membrana tympani.

The symptoms of an accumulation of cerumen are—sudden deafness, often following a cold, by which the dermis is tumefied, bathing, or the introduction of water into the ear. This deafness is often better in the morning, and is increased by the movements of the jaw during mastication; it often disappears as suddenly as it came, and with a cracking sound in the ear. The cause of the sudden appearance and disappearance of the deafness is the movement of the mass of cerumen, when it is so placed as to allow sonorous vibrations to pass between it and the wall of the meatus; the hearing returns, and when it again comes in contact with the meatus the deafness recurs. Oftentimes, a feeling of fulness in the ear is also complained of, and not unfrequently there is singing and giddiness. It is sometimes accompanied by considerable pain in the ear.

The symptoms attendant upon a collection of cerumen in the meatus vary according to the nature and position of the mass. In some cases the whole of the meatus is distended by cerumen, the inner end of which lies in contact with the outer surface of the membrana tympani, of which it often forms a cast; in these cases there is often giddiness, arising from the pressure on the chain of ossicles. The symptoms of pressure on the brain are familiar to most Surgeons, but it is not generally known that pressure on the contents of the labyrinth produces somewhat analogous symptoms. A mass of cerumen may force inwards the membrana tympani and the chain of bones, until the base of the stapes is pressed against the contents of the vestibule. In some cases of this nature constant attacks of giddiness occur, in others there is a confusion of ideas, and an inability to walk straight, while in others there is a feeling of pressure and weight on the head. These symptoms are often combated by the use of counter-irritants and depletion, but I need not say the only remedy for them is the removal of the accumulation.

In some cases there is a large mass in the outer half or two-thirds of the tubes, while the portion near the membrana tympani is empty; in other cases there is only a small quantity, which adheres to the outer surface of the membrana, and gives rise to great irritation and irregular action of the tensor tympani muscle. When the mass is very hard, it is liable to cause inflammation of the dermoid meatus. A collection of cerumen may remain in the ear for many years, and the ears of the patient may have been frequently syringed, without the nature of the affection being detected. One accustomed to pay attention to cases of deafness will, however, generally be able to state when cerumen is present, even without any examination. I have not unfrequently diagnosed the disease from the written account of a Medical man, and a repetition of the syringing (which had previously been practised), but with increased vigour, has entirely removed the deafness. An examination with the speculum and a strong light should, however, always be made before adopting any treatment.

The prolonged presence of a hardness of cerumen in the external meatus is sometimes productive of injury to the walls of the meatus and to the membrana tympani. I have in my museum several specimens, and some of which I now show you, in which the osseous meatus has been much dilated; in others the bone has become absorbed in parts, and in one instance a portion of wax was imbedded in the mastoid cells, having passed through an orifice in the attenuated posterior wall of the meatus. In another case the cerumen, by its pressure, had caused an ulcerated orifice in the membrana tympani, and a portion of it had passed into the cavity of the tympanum.

The *treatment* of cases in which there is an accumulation of cerumen of course consists in its removal. The best, and, indeed, the only judicious mode of removing it is the use of the syringe, by which means even the hardest masses can be effectually dislodged. The use of other instruments, as a scoop, has been suggested, but I have rarely known them to have been used without the production of pain, inflammation, and often of discharge from the dermis. There is no doubt that the ordinary small syringe is not sufficiently powerful to remove a hardened mass; the one I usually employ, and which is valuable for many other purposes, holds three ounces and a-half, and is furnished with two rings, so that it can be held in the right hand, leaving the left at liberty to hold the ear of the patient.

The nozzle of the syringe, which, you perceive, consists of a metallic tube of very small size, should be made to take off, and when the water has been drawn in through the large aperture should be again fixed on. By so doing air is kept out of the syringe and much time is saved, as it is not easy to fill a large-sized syringe through a small aperture. The point of the nozzle should not be larger than the body of an ordinary probe, so that the water may be injected with sufficient force, and that its return at the orifice may not be impeded. The ear of the patient should be placed opposite to a window,

and the point of the syringe should be placed at the posterior part of the orifice of the meatus, or the stream is liable to strike against the anterior wall of the tube; at the time that the syringe is used the ear should be drawn backwards so as to straighten the tube. If this cannot be effected, on account of the left hand of the Surgeon being otherwise engaged, the posterior wall of the meatus may be pressed backwards by the point of the syringe. Warm water is quite sufficient, without the use of any solvent. It should be quite clear, and it is always desirable to have two vessels, one for the water before it is used, and one to receive it after it returns from the ear. If a glass vessel is used to receive the water from the ear, the condition of the water, and consequently of the ear, is more easily determined. The use of an ear-spout is very serviceable when the process of syringing for any purpose is practised. It consists of a spring to pass over the head, at one end of which is a funnel to fit under the ear, down which the water runs into the basin.

In many cases, when the collection of wax is not very hard, the injection of one or two syringes full of warm water is sufficient to dislodge the mass. In other cases, a much longer time is required; and, when the wax has been very hard, I have sometimes injected warm water for twenty minutes, or half-an-hour, without removing any particles, or even causing the water to be clouded. Sometimes it is well to let the wax become softened by the water before having recourse to the syringe again; and in those cases in which the cerumen is very hard, or the meatus is so tender that the use of the syringe causes much pain, it is desirable to order a weak alkaline solution to be dropped into the ear in the intervals of syringing. As it is not desirable to proceed with the use of the syringe when there is no wax, the meatus should frequently be inspected, to ascertain whether the whole mass is removed, as it frequently comes away slowly, and in small pieces at a time; the last portion that comes away is usually a large piece, and is often a cast of the outer surface of the membrana tympani. After the removal of the cerumen, a piece of cotton wool may be worn for a day.

Cases of Accumulation of Cerumen in the Meatus Externus.—Case 1.—Mrs. R., aged 38, consulted me in July, 1854, on account of a considerable dulness of hearing. She stated that, without any previous symptoms, ten months previously she suddenly became deaf, first in one ear, and then in the other. After being deaf for a month, after a crack in each ear, she regained her hearing; and it had remained perfect until a few days since, when, during a severe cold, she again became deaf. Upon examination, I found the meatus of each ear full of dark cerumen; the hearing distance was only half-an-inch, and the patient required to be spoken to loud within a yard. Upon the removal of the cerumen the hearing was perfectly restored.

Case 2.—*Mass of Cerumen extremely hard and very difficult to remove.*—Lord D., aged between 50 and 60, consulted me in April, 1851, on account of deafness in the right ear, accompanied by a sensation of fulness in the ear. A large mass of cerumen was detected in the meatus, which was not at all affected by syringing for half-an-hour. A solution of carbonate of soda in water (ʒj. ad ℥j.) was ordered to be dropped into the ear for some days, but the mass was scarcely at all softened. The application of the solution was, therefore, continued, and it was only after several weeks that the cerumen was dissolved sufficiently to be removed with ease.

Case 3.—*Accumulation of Cerumen attended with pain and inflammation of the Dermis.*—Miss H., aged 30, consulted me, in May, 1853, on account of a shooting pain in the right ear, which she had experienced, with scarcely any intermission, during a fortnight; she was not aware that the hearing power was at all diminished. On examination, each meatus was found full of cerumen, the hearing distance of the right ear being half-an-inch, that of the left ear 10 inches. The cerumen was removed from each ear; that in the right was exceedingly hard, and required frequent syringing. The hearing distance of the right ear rose to 6 inches, that of the left became natural. The surface of the right meatus was red, and it was swollen. The pain ceased, and the symptoms of inflammation disappeared after the removal of the cerumen.

Case 4.—*A mass of Cerumen producing Inflammation of the Dermoid layer of the Membrana Tympani.*—J. R. M., aged 55, a Surgeon, complained, in 1849, of pain in the right ear, accompanied by considerable deafness. The pain was paroxysmal, and very acute; it was increased during the act of swallowing. The meatus was found distended by cerumen, and its removal gave immediate relief to the pain and the deafness. The upper half of the dermoid layer of the membrana tympani, against which the mass of cerumen had evidently pressed, was red and much swollen; the lower half was healthy.

Case 5.—*An Accumulation of Cerumen causing Neuralgic Pains in the Face.*—G. W. H., Esq., applied to me in May, 1853, on account of a dulness of hearing in the right ear, accompanied by slight pain in the ear, and a considerable pain extending over the right side of the face. This facial pain came on at times very suddenly, was very acute, and then disappeared; it had lasted for eight or nine days. A considerable accumulation of cerumen was found to fill the right ear; it was removed by means of the syringe, whereupon the dulness of hearing, the pain in the ear, and that in the face, entirely disappeared.

Case 6.—*An Accumulation of Cerumen, causing Pulsation in the Ear.*—W. E., Esq., aged 53, consulted me in October, 1851, on account of a pulsation in the right ear whenever he is in the recumbent position, but which ceases directly he assumes the erect position. He also complains of occasional singing in both ears. For these symptoms he had for some time been under Medical treatment, but it had not succeeded in diminishing them. A mass of cerumen was found filling each ear, the removal of which improved the hearing greatly, and entirely removed the pulsation.

Case 7.—*Giddiness, and other Symptoms of Cerebral Irritation, caused by a Collection of Cerumen; Cure.*—L. S. M., Esq., aged 43, applied to me for relief in November, 1845, on account of the following symptoms:—He said that, five or six years previously, he had an attack of deafness in the left ear, attended by a considerable singing; he has occasionally been deaf since that period, especially in a morning, but he has usually recovered during the day; sometimes he has been deaf for a short period after blowing the nose. Eleven months ago, after going into the air from a warm room, a singing suddenly occurred in the right ear, and it has remained till now. He has lately suffered from a sensation as if a weight were on the top of the head; also of frequent attacks of giddiness, which have caused him much alarm; while walking in the street he has observed himself now and then to make "a lurch." Upon inspecting the ears each meatus was found to be full of hardened cerumen. Upon the removal of the collections the head-symptoms wholly vanished.

Another patient, an artist, aged 44, who suffered in a similar way to the above, was so giddy as to be obliged to lay hold of the railings for support on his way to my house. He was unable to discern the features of "a sitter" for more than a minute at a time; and he had the greatest difficulty in writing an ordinary note. He was cured at once by the removal of a mass of cerumen from each ear.

In the following case the symptoms were still more marked.

Case 8.—Mrs. R., aged 45, consulted me in April, 1845. She stated, that four months previously she began to experience noises in the ears; these were followed by a considerable amount of deafness. These symptoms existed seven months, and then disappeared for three weeks, at the end of which time they re-appeared, together with a sense of confusion in the head; which, at times, was so bad, that she could not for some minutes tell where she was; on other occasions she was so giddy as to reel and even to fall in the streets, and she has often been unable to retain hold of things, so that they have fallen from her hands. A large compact mass of cerumen was found in each ear; it was removed, after some syringing, and the operation was followed by complete relief.

Deaths in Public Institutions for the Week ending August 16:—

	Males.	Females.	Total.
Workhouses	49	45	94
Prisons	..	..	..
Military and Naval Asylums ..	6	..	6
General Hospitals	37	14	51
Hospitals for Special Diseases ..	4	6	10
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	8	..	8
Hospitals for Foreigners, etc. ..	1	..	1
Lunatic Asylums	4	6	10
Total	109	71	180

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

(Selected by Authority of the Director-General from Documents in the Office of the Army Medical Department.)

No. XXV.

OBSERVATIONS ON THE STATISTICS OF DISEASES OF THE ORGANS OF RESPIRATION, AS THEY AFFECT SOLDIERS, OFFICERS, WOMEN, AND CHILDREN IN INDIA.

By CHARLES ALEX. GORDON, M.D.
Surgeon 10th Regiment of Foot.

The climate of India is, on account of its high temperature and supposed gradual alternations from heat and cold, generally believed to be favourable to diseases of the respiratory organs; the liver being liable to suffer in nearly the same ratio that the pulmonic viscera do in the United Kingdom.

How far this is actually the case, it shall be my endeavour in the following observations to discuss; taking as my data the Returns of the Regiment to which I have the honour to belong,—these embracing a period of thirteen years, from 1842 to 1855 inclusive,—during which the corps has undergone at least the average amount of field-service and other vicissitudes to which military bodies are subject in the same space of time; including two campaigns, two general actions and a siege, in addition to four marches varying from 300 to 800 miles each.

With a view to indicate as concisely as possible the actual extent to which the organs of respiration were affected by disease, independent of mere complications of other maladies or local injuries, the following Table has been constructed; the nomenclature followed being the one always adopted in our official records.

Particular Diseases of the Organs of Respiration.	Soldiers. Strength, 11,780.				Officers. Strength, 409.				Women. Strength, 1191.				Children. Strength, 1460.			
	Cases admitted.	Deaths.	Deaths per 100 admitted.	Cases per 100 strength.	Cases admitted.	Deaths.	Deaths per 100 admitted.	Cases per 100 strength.	Cases admitted.	Deaths.	Deaths per 100 admitted.	Cases per 100 strength.	Cases admitted.	Deaths	Deaths per 100 admitted.	Cases per 100 strength.
1. Pneumonia	59	15			2	..	..		6	..			5	3		
2. Pleuritis	73	2	11·35	1·57	1	..	..	1·71	..	..	12·50	0·67	..	..	25·00	0·82
3. Bronchitis	53	4			4	..	..		2	1			7	..		
4. Hæmoptysis	19	1	48·43	0·53	1	..	..	0·24	3	..	58·33	1·00	..	..	..	..
5. Phthisis Pulmon. ..	43	29			..	..	..		9	7			..	..		
6. Catarrhus acut. ..	696	14	2·62	6·74	43	..	..	10·75	22	..	..	1·84	..	..	..	1·57
7. ,, ,, chron. ..	99	7			1	..	..		..	..			23	..		
8. Asthma	2	1	5·55	0·15	..	..	..	0·73	..	..	..	0·08	..	..	..	..
9. Dyspnœa	16	..			3	..	..		1	..			..	..		
General Totals ..	1050	73	..	..	55	..	..	..	43	8	..	..	35	3	..	..

From the above Table it appears that the liability to attacks of diseases affecting the organs of respiration among the various classes constituting the 10th Regiment, was, among men, 8·06 per cent.; officers, 13·44; women, 3·61; and children, 2·39. On considering the rate of mortality to cases, however, we find that the degree of liability to this class of diseases does not represent the tendency to death from the same cause among them. For instance, while 6·90 per cent. of soldiers seized with pulmonary diseases succumbed, the officers, who seem to have been the class most frequently seized, were altogether exempt from fatal attacks.

The deaths among the women were in the proportion of 18·60 attacked, and among the children 8·57, although these two classes were the least liable to the disease.

Of the different forms of diseases here enumerated as occurring in the 10th Regiment, the men were subject to the greatest variety, next the officers, then the women, and lastly, the children, who were only affected with three of the whole number. Not one case of phthisis occurred among those under 15 years of age; and the exemption from it is the more remarkable, because death from other forms of disease arising from imperfect or vitiated nutrition were common. In fact, scrofulous affections of the cervical as well as mesenteric glands were the most frequent ailments among children of both sexes, and the mortality from the latter cause exceedingly great.

It is also a somewhat remarkable circumstance, that no case of croup seems to have occurred among the children of soldiers in the 10th Regiment during the thirteen years the corps has been in India; nor is this the less noteworthy from the fact that the children of officers have been by no means exempt from this disease. It would seem, however, that while at the stations in the hills the affection is not uncommon among children, it rarely attacks those who continue to reside in the plains.

With regard to the age of soldiers who were the subjects of pulmonic diseases, great variety existed, from the young recruit of 18 to the old, worn out man of 38 and 40. If, however, we confine our notice on this head to hæmoptysis and phthisis, it is then found that the age most liable to these was between 18 and 25; and that the tendency decreased thence to 35, after which I cannot bring to my recollection a single case.

Age did not appear to have had much, if any, influence on the occurrence of the other forms of disease now being discussed, with the exception of those included under the respective heads of catarrhus chronicus, asthma, and dyspnœa—all of which occurred in soldiers of 25 or 30 years of age and upwards, their obstinacy and severity being in proportion to the advanced age of the patient.

In the low moist climate of Bengal, where the temperature, although high, is subject to comparatively slight alternations, active inflammation of the lungs is infrequent, but phthisis is common, as in the more dry climate of the north-western provinces, where the monthly mean temperature varies from 55° Fahr. to 95° Fahr., and the whole range of the exposed thermometer in the open air and sunshine extends throughout the year from 28° Fahr. to 140° Fahr.

Field-service, and the exposure incidental thereto, do not appear to increase the frequency of pulmonic attacks, for during two campaigns in which the regiment was engaged, each extending over several months, and including portions of both cold and hot seasons, the admissions from this cause were actually fewer than during other years in which the men remained in cantonments.

That exposure to cold, however, under certain circumstances, is among soldiers a most prolific source of pulmonary diseases, is too evident to be doubted; but it has been remarked among the men to whose cases I am now alluding, that this exposure to cold may occur without an absolute de-

crease of temperature, to such a degree as, according to common parlance, would justify the employment of the expression. Thus, after the continuance of the intense heat of the north-west frontier, where, with every contrivance for diminishing the temperature, the thermometer ranges, nevertheless, at 94° Fahr., and even upwards throughout day and night, the occurrence of a thunder-storm, especially if it be accompanied by rain, induces a rapid fall in the mercury to about 80° Fahr., when the sensations indicate a degree of cold far below that, while the vital energies being debilitated and exhausted by the previous oppressive heat, are thereby rendered the more liable to be affected by transient causes, and thus the pulmonary organs under such circumstances become affected.

Another condition under which these affections are of frequent occurrence is that which happens at the change of seasons, when, although the heat of the day is very intense, the nights are, nevertheless, exceedingly cold. The soldiers are then apt to neglect the precaution of using sufficient bedclothes, lie down and fall asleep with only a light covering over them, or, perhaps, none at all. Towards morning they awake chilled from the cold to which they thus expose themselves, and a very few repetitions of the indiscretion induce some one or other of the maladies now under review.

How, then, does it happen, that on a march or campaign, where the degree of cold to which soldiers are exposed in India is at its maximum, chest affections are comparatively rare? One reason is, doubtless, to be found in the circumstance, that during the cold season, when they are thus employed, the temperature and climate become peculiarly bracing and invigorating to those who have escaped organic disease throughout the hot and rainy months; while the active but regular mode of life they must then necessarily lead fortifies them, in a great measure, against the ordinary causes of disease.

With reference to the connexion between hæmoptysis and phthisis in India, the statistical table shows pulmonary hæmorrhage to have occurred in nearly one-half, or, to be still more minute, in 44·18 per cent. cases of the latter disease borne on our numerical returns; and if we bear in mind that the figured statement includes, in several instances, re-admissions of the same person who may have been temporarily benefited while in hospital and discharged for a short time to barracks, it will appear that the actual proportion of persons in whom the first indication of the disease was spitting of blood, was even greater than is here represented.

Of the recruits who annually joined the regiment from England, there were two classes who were especially liable while undergoing their instruction in drill, to break down from incipient phthisical disease, or other modification of the scrofulous diathesis. These were lads from manufacturing towns, or who had formerly lived in low, ill-ventilated parts of large cities, and half-famished young men from some of the Irish districts.

In neither of these had the abundant food, good shelter, sufficient clothing, and regular occupation, which they found in the army, the effect of strengthening the system; on the contrary, few indeed who, on their arrival in India, manifested any tendency to phthisis withstood the climate, even with all these advantages, for a period of two years; while many became affected, during the first year, with confirmed tubercular disease, necessitating their return to Europe for change of climate, or final discharge from the service.

This has often been observed by other Military Medical Officers, and seems one sufficient reason why such classes should be permitted to be sent to a hill sanatorium for one or two years after their arrival in the country, where they would escape the debilitating and exhausting influence of the hot weather in the plains, and thus permit their strength and constitution to become fully formed. By such a measure there would also accrue a considerable pecuniary saving to the State, as these lads would thus become efficient soldiers, instead of requiring to be sent to England, entailing upon Government the passage-money of fresh bodies of young men, with similar tendency to pulmonary diseases as themselves.

The rate of prevalence of catarrh among soldiers and officers, but particularly the latter, must appear somewhat remarkable, and may, as regards the commissioned ranks, be accounted for in this way:—A soldier will not, as a general rule, apply for Medical treatment, and subject himself to the confinement and deprivations of Hospitals, if he can manage to perform his regular duty; but the officer, if ill, labours under no such disadvantage, and, therefore, manifests no such disinclination in applying to the Surgeon.

It is somewhat difficult to define precisely the train of symptoms that are held to constitute the two forms of disease noted in the numerical return as "catarrhus acutus," and "catarrhus chronicus;" for, in Hospital practice, the terms seem sometimes to be employed somewhat indefinitely. The former may, however, be considered as indicating the existence of an inconsiderable degree of pyrexia, attended by what are usually understood as catarrhal symptoms, with a tendency, on the one hand, to degenerate into unequivocal bronchitis or pneumonia, and, on the other, into severe fever of the continued type; while the latter may either indicate chronic inflammation, with more or less thickening of the lining membrane of the air-tubes, or confirmed phthisis pulmonalis.

The fatal cases, then, under these heads may be considered as virtually occasioned by the supervention of fever, active inflammation of the bronchiæ or pulmonary tissue, or the deposition and suppuration of tubercle; and, indeed, it is often painful to witness how frequently in India an attack of what is considered nothing more than an ordinary "cold" calls into activity the deposition of tubercle, the tendency to which may have previously been latent.

In military returns, the terms "asthma" and "dyspnœa" are sometimes employed synonymously, although depending upon very opposite pathological conditions. Thus, among soldiers, asthma generally occurs after repeated attacks of bronchitis, and is probably connected with a degree of degeneration of the lining membrane of the air-tubes, the individual paroxysms being occasioned by spasmodic contraction of the muscular fibres of the tracheal rings, and ultimately producing dilatation of the air-cells, if not actual emphysema. Dyspnœa, on the contrary, generally depends either upon permanent condensation of the pulmonary tissue, rendering it impervious to air, or upon disease of the heart, arising secondarily from the conditions first mentioned, or occurring as an independent malady.

Under the latter form it does not properly belong to diseases of the organs of respiration, but in actual practice this minute distinction in the nomenclature followed, is not always rigidly attended to.

It does not appear that season had any apparent influence upon the occurrence of these, but it is deserving of note, that no case occurred until the regiment had been three years in India, and then never in the case of very young men.

In the treatment employed in this class of diseases as they occur in India, although the general principles upon which it is directed must be the same as at home, still certain modifications are rendered necessary, in consequence of the tendency of the climate being to relax and debilitate the system of the patient. Thus, active depletion by the abstraction of blood cannot be extensively employed in the treatment of the more severe forms of inflammation, as in our more bracing and exhilarating climate; but, then, the rapidity and ease with which vascular action may generally be subdued by medicine compensates, in some degree, for this disadvantage.

In the management of pneumonia and pleuritis, although we seldom abstract blood from the arm, and, when we do so, take a comparatively small amount, we use calomel, opium, and tartarized antimony, in larger quantities, and repeated at more frequent intervals than in the United Kingdom. Indeed, as a general rule, so much larger are the doses of remedial agents required to produce a particular effect in India than in this country, that we are naturally led to entertain the belief that the human system is, on account of climaterial influences in operation there, rendered less susceptible to the operation of medicine than in the higher and more insular climate of Britain.

Hæmoptysis, so far as my observations extend, never occurs in India in the robust and powerful, except as a direct consequence of over-exertion, or some physical injury. When it takes place spontaneously, it is in the delicate person of tubercular diathesis, so that in its treatment we must, instead of removing blood by some other channel, as is recommended at home, endeavour by all means at our disposal to save every drop we possibly can.

With this view we give the more active astringents freely, such as acetate of lead and opium, or sulphuric acid. But of all remedies, the gallic acid is the most effectual in checking

hæmorrhage of this description. It may be given in doses of five grains, repeated at short intervals, as an hour, or even less; the patient being, at the same time, kept as cool and lightly clothed as circumstances will admit.

It has been always seen that a large proportion of cases of phthisis is preceded by pulmonary hæmorrhage. So soon, then, as the circumstances of the case will permit us to employ tonics and nourishing diet we must do so. Animal food, nitrogenous substances, and malt liquors are then to be given as freely as possible.

Cod-liver oil is indubitably the most appropriate remedy, and when it can be procured, is given to the soldier with the same striking benefit that attends its use in this country, and indeed everywhere else.

Unfortunately, however, the quantity allowed for the use of our regiments in Bengal is totally inadequate, and we are thus driven to employ what substitutes we can. Cocoa-nut oil and almond oil have accordingly been employed, but with comparatively little benefit. For a period of three years I was in the habit, when unable to procure cod-liver oil, to administer melted butter in combination with iodide of potassium in the proportion of half an ounce of the former to five grains of the latter; repeating the dose two or three times a-day, and it was remarkable how soon the palate tolerated this preparation, and what amount of benefit accrued from its use.

When softening or suppuration of the tubercles occurred, the palliative measures employed were similar to those so familiar in every-day practice at home.

I am not aware of a single man in the 10th Regiment in whom unequivocal symptoms of phthisis occurred having ever afterwards become an efficient soldier. Both this disease as well as asthma and dyspnœa are sufficient causes for sending the persons affected to England; and however successful our treatment may, for a time, seem to be, we must bear in mind that the life of the patient can only be prolonged by his removal out of India at the earliest opportunity.

August, 1856.

ON FISSURE OF THE HARD PALATE.

By A. G. FIELD, F.R.C.S.,
Late Surgeon to the Royal Sea-Bathing Infirmary,
and Demonstrator of Anatomy at St. George's Hospital Medical School.

The great difficulty of closing openings in the hard palate, when caused by disease, is admitted by all surgical writers. Even Mr. Fergusson, who has done so much to improve the operation of staphyloraphy, while he recommends perseverance in the endeavour, states, that though he has tried the plan of operating suggested by Dr. Warren, of Boston, in several instances, it has always been without success. Mr. Erichsen, in his "Science and Art of Surgery," also states, "This operation has not, I believe, been hitherto successful in this country, and, indeed, been but little practised, but yet it deserves attention, and holds out a prospect of eventually proving successful in cases of this kind."

The following case not only illustrates the difficulties and disappointments which are liable to attend the operation, but also points out a means by which ultimate success may be attained.

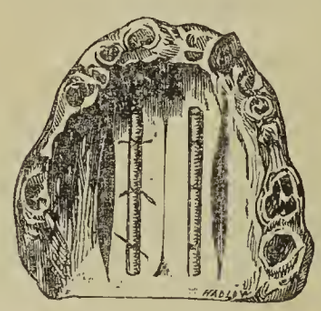
Mrs. G., aged 47, has had disease of the palate and separation of a considerable quantity of bone, on recovery from which an opening was left leading into the nasal fossæ, situated about the middle of the hard palate, and large enough to admit the little finger. The parts have been soundly healed for some months, and she is in good health, but experiences much inconvenience from the defect. Her voice is nasal, and it is necessary constantly to wear a plug, to prevent the passage of food and fluids into the nose.

April 15th, 1856.—I tried, with the assistance of some medical friends, to produce congelation of the palate, by means of salt and pounded ice, but in this we totally failed, even after more than an hour's perseverance. Our failure is to be accounted for, I suppose, by the high temperature of the parts and the currents of warm air through the mouth and nose, to both of which the freezing mixture would be exposed. Had I succeeded in getting the parts frozen, the advantages to be thereby gained are obvious. All pain would have been saved to the patient, during an operation which might have been accomplished in a very short time, as no interruption would have occurred from hæmorrhage, which gives rise to one of the principal difficulties in plastic operations in the mouth.

Failing in my endeavour to produce congelation I proceeded to operate according to the method of the late Dr. Warren. Having carefully removed the edges of the opening with a small scalpel, an incision of a little more than an inch in length was made, from behind forwards, quite down to the bone on each side, and about half an inch external to the fissure. The soft parts included between these two incisions were then perfectly separated from the bone, by means of an instrument which I will presently describe. When this was done, the flaps so formed by the detached soft structures met together over the opening, where, as soon as bleeding had been arrested by freely bathing with iced water, they were retained by three sutures introduced in the manner practised by the late Mr. Avery. After the operation was completed one small artery bled freely, and required sustained pressure with the point of a finger to arrest it. The sutures were allowed to remain in five days, during which time the patient abstained from solid food, but partook freely of beef-tea, porter, etc.

The result of this operation was a considerable diminution in the size of the opening, but when the parts had quite cicatrized a hole remained of about half the original size.

June 11.—The operation was repeated, but this time the edges were pared obliquely, the mucous membrane of the nose being removed on one side, that of the palate on the other, so as to allow the edges to overlap each other, whereby a larger extent of raw surfaces were brought into mutual contact. I also used the quilled suture, instead of the simple interrupted suture, which had been employed in the former operation. This interfered less with the circulation in the flaps, while it afforded them more perfect support. After the second operation a hole still remained, about as large as a pin's head. This I tried to close by cauterizing with a hot wire, but as nothing was gained by that, after the cicatrix had formed, I brought the parts together on the 30th of June in the same way as before, in addition to which I supported the flaps in contact by well stuffing the lateral incisions with cotton wool. When the sutures were removed, six days after complete union appeared to have taken place, and I was just rejoicing in my success when I observed a small discharge of mucus, which, on more careful examination, I found had passed from the nose through a minute fissure. In a few days this increased, a little ulceration took place, and at the end of a fortnight the opening was considerably larger than before the last attempt to close it.



17th.—I performed the fourth and last operation, my patient cheerfully submitting, being encouraged by the comfort she experienced from what had already been accomplished. This time I proceeded with, if possible, more elaborate care than on the former occasions, and having completed the other steps of the operation in the same way as before, I carefully dried the parts and washed them over with a solution of gutta percha in chloroform, and then adapted a thin sheet of gutta percha over the whole surface. This I did because I believed failure in my pre-

vious efforts to obtain complete union depended on a portion of mueus being drawn from the nose between the edges of the flaps in the act of swallowing, which it is impossible for the patient wholly to avoid. This belief was strengthened by observing, after the failure of the third operation, that the shred of mucus was drawn further into the mouth after each time the patient closed her mouth for the purpose of swallowing the saliva which collected in it, while it was held open for examination; and I imagine it occurs in the following manner:—When the first part of the act of deglutition has been accomplished, and the morsel has passed beyond the reach of the tongue, the upper surface of that organ is left accurately applied to the roof of the mouth, and its return to the position it usually occupies is effected by the genio-hyoglossi muscles, which being inserted near to the median line, would, by their contraction, depress the middle of the tongue first, while its sides were still in contact with the palate; by this means a degree of suction would be produced whereby the loose edges of the flaps would be liable to displacement and to have the nasal secretions drawn down between them into the mouth, preventing union of their surfaces, however accurately they may have been adapted. Whether my explanation of the usual cause of failure when this operation has been performed be correct or not, I submit to the decision of more competent judges; but certain it is that I had the happiness of completely accomplishing my object, the removal of a very distressing annoyance to this poor woman, for all that now remains to be seen in her palate is a linear cicatrix in the situation of the opening which had caused her so much trouble, and a broad scar on each side, caused by the gaping of the lateral incisions, which were rapidly filled up with granulations and covered over by mucous membrane.

The instrument which I have found most useful in detaching the soft parts from the hard palate is here represented. It differs from those used by the late Mr. Avery in having the blade set on obliquely, so that it allows the flat surface to be applied against the palate, while the handle and hand of the operator are free of the lower jaw. The bend in the neck of the instrument is also advantageous in giving the operator more perfect command over the movements of the blade. With such instruments (a different one being of course necessary for each side) I have always been able to accomplish the most troublesome stage of the operation with ease and rapidity.

28, Old Steine, Brighton, July 30, 1856.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

THE METROPOLITAN FREE HOSPITAL.

(Communicated by Mr. HUTCHINSON, Surgeon to the Hospital.)

(Continued from page 174.)

The following cases are some which could not be classified under any of the preceding heads. I shall be very brief in mentioning their prominent features, but should any reader wish for more detail I shall be happy to supply it.

ABSCESSES, ERUPTIONS, ULCERS, Etc.

Case 17.—An infant of 3 months, with the aspect and odour of congenital syphilis, but no specific symptoms. Ill for three weeks, with large abscesses in thighs and neck, eczema about labia, and ophthalmia tarsi. Three grains three times daily; abscess in neck opened; no other treatment. A week after:—very much better: eyelids well. The abscess healed kindly, and several large indurations, which threatened suppuration, are absorbing. At the end of a fortnight, undoubted symptoms of syphilis showed themselves, and the chlorate was laid aside for mercurials. It must be noted that, although the chlorate did not appear to modify the specific disease, yet under its use the tendency to the formation of abscesses subsided.

Case 18.—An infant, aged 9 months; spoon-fed, but healthy-looking. Whole mouth inflamed, but without actual ulceration. Feverish. Gr. ij. ter die. In four days the mouth was nearly well; in ten it was quite so.

Case 19.—Emma Hutters, aged 20 months; pale and delicate. Admitted on account of a tense, brawny, ill-defined induration in the right buttock, quite as large as a fist. She had suffered much pain in it, and the inflammation had been daily increasing for four days. I made no doubt but that pus existed in its centre, but, from the great thickness of tissue, deferred an incision. Ordered, pot. chl. gr. iv., ter die. This was continued for a week, during which the infant improved in health; and the swelling, instead of coming forward, gradually diminished. Two weeks after, the swelling had quite disappeared, but there could be felt under the skin a mass of induration, resembling to the touch a large subcutaneous cicatrix.

Case 20.—A woman, aged 50, admitted on account of a very large phagedænic ulcer of the leg, extending down its front aspect just over the tibia. She had never had sores on the leg until the present, which commenced from a graze three weeks ago. Its edge was phagedænic, and extending rapidly. Ordered chlorate, gr. x. ter die. An alterative pill every other night, and the ointment of the ammonio-chloride of mercury. The sore progressed favourably from the day after the commencement of the treatment, and in less than six weeks was quite healed. The woman had been allowed to pursue her ordinary avocations the whole time. On account of the other measures of treatment, no trustworthy inference as to the effect of the chlorate can be drawn.

Case 21.—A pale, delicate lad, aged 16, admitted with acute inflammation of the pharynx; the tonsils presented symmetrical ulcers. The throat was stated to have been very sore for two days. He had never had it before, and there was no reason for suspecting syphilis. The chlorate in ten-grain doses, and an alum gargle. In three days he presented himself quite well; the throat, he said, lost its soreness the day after commencing the treatment.

Case 22.—A stout, pale boy, aged 16 months. Eczema impetiginoides on nose and chin, with enlarged lymphatics in neck. Disease of two weeks' duration. Some feverishness. Pot. chl. gr. v. ter die.; no other treatment. Three days later is feverish, and has a cough. Continue the mixture, and apply tinct. iodid. co. to the chest. He ultimately got quite well, without any local application to the disease.

Case 23.—A Jew, aged 50, for two months the subject of repeated crops of boils. Many small boils mixed with impetigo, and scars of former ones. I touched the larger boils with acid nitrate of mercury, and ordered gr. x. of the chlorate. A week afterwards most of the boils had disappeared, and all were declining. He recovered well, without any addition to the treatment.

Case 24.—A fairly healthy man, aged 35, admitted on account of a rather extensive eruption of ecthyma, mixed with lichen, over the thighs, legs, and shoulders. Ordered ten grains of chlorate thrice daily; no other treatment. The eruption, which had existed for three months before, and had been increasing in severity during the fortnight previous to admission, was very perceptibly diminishing at the end of the first week; in three weeks it was quite well.

Case 25.—A healthy boy, aged 6. Sores on the lips of three weeks' duration, and impetigo about the arms; no sores whatever in the mouth, and no fetor of breath. Ordered gr. vi. ter die; ung. hyd. am. chl. One week, lip no better. Is feverish and restless, but eats well, and has no degree of stomatitis. Increase the dose of chlorate to ten grains; a calomel purge. End of third week:—the lip is well. No evidence of benefit from the chlorate.

Case 26.—A boy, aged 9; had been liable to eruptions ever since the age of 7, when they followed small-pox. His scrotum and abdomen were covered with impetigo sparsa, which was stated to have been in its present state for six months. His tonsils were enlarged, and a few sores on the lining of the lips seemed to indicate a tendency to stomatitis. Ordered ung. hydr. am. chl., and six grains of chlorate three

times a-day. In three weeks he was well in every respect, excepting a few spots on the chest.

Case 27.—A fair-complexioned, rather delicate, looking boy, aged 14 months, came under treatment for an acute outbreak of pemphigus, attended with much fever. The eruption chiefly affected the neck; and some of the surfaces, exposed by the bursting of the bullæ, had formed superficial ulcers. His cheeks were swollen, and the mouth aphthous. He was feverish, had no appetite, and looked very ill. The illness had lasted a week, and the eruption had in the first instance come out on the thighs, arms, etc. Ordered gr. vij. ter die; ung. zinci to the ulcers. This treatment was continued without modification for a fortnight, when the note states—All the places healed very quickly, and the skin is now quite sound. He looks much better, and although at times fretful, is generally lively and cheerful. Tongue furred; is cutting teeth. To omit all medicine, and apply again should any relapse occur. Did not again attend.

Case 28.—An infant, of Irish parentage, aged 14 months; miserably pale and ill-looking. Three weeks ago he had scarlet fever, after which large sloughing abscesses in the neck followed. The muscles of the trachea were exposed, and there was a large ulcer, entirely destitute of granulations, presenting a clear glossy surface, and having undermined edges. His mother in answer to my inquiries, said she thought him, if anything, a little better than he had been a few days ago. He was still, however, in a condition of great danger. I ordered the chlorate, in doses of 15 grains, which were for one so young very large. No other treatment. He was at the breast. Three days after the ulcers were granulating healthily, and he was very much better in every respect. The skin over a large collection of matter in the left neck being on the point of giving way, I opened the abscess. To continue the medicines. His mother did not bring him again for three weeks, and I then learnt that in the interval he had had the measles, and had almost died. The condition of things in the neck was now worse than ever; the left sterno-cleido mastoid was exposed for a considerable length, and the whole front of the neck was one ulcer, burrowing deeply beneath adjacent structures. No sloughing was now in progress, but the surface was pale and glossy, with profuse suppuration, but little tendency to granulate. To take the same mixture as before. A week later the ulcer had again assumed a most healthy condition, and was rapidly healing. He appeared in fair health. The dose of the chlorate was reduced one-half. A fortnight after the commencement of the second treatment, the ulceration had healed to a comparatively small size. He was still very pale, and had some spots of porrigo about the face. A small abscess behind one ear required opening. Continue the mixture, and give also a tea-spoonful of cod-liver oil twice a-day. Recovered perfectly.

Case 29.—A boy, aged 3, in fair health, liable to eruptions since vaccination, applied on account of a sore mouth, of one month's duration. It appeared from the history to have been originally follicular stomatitis, but all that now remained was deep fissures, with whitish borders, extending in the lining membrane of the cheek, from the right angle of the mouth. The cheek was somewhat swollen. 15 grains of the chlorate three times daily were ordered. Ten days after, his mother attended without bringing him, and told me that the sore had improved from the very first day of taking the medicine, and was now quite healed. No other treatment had been pursued.

Case 30.—A Jewess, aged 23, came under treatment for sore throat, and a small ulcer on the side of the tongue, both of 2 weeks' duration. The tonsils, pharynx, and mouth generally were congested. The voice was hoarse. 10 grains of chlorate three times daily. The sore on the tongue was healed in four days, and the throat was much improved. She continued the treatment for ten days, but did not quite get rid of her hoarseness, although well in every other respect.

Case 31.—A woman, aged 31, was admitted under the care of my colleague Dr. Ramskill, on account of hæmorrhagic purpura. The illness had lasted seven days, and was increasing in severity. As usual no dietetic cause could be assigned for its outbreak. There had been profuse bleeding from the vagina, the skin was covered with spots and bruise-like patches, and the gums were swollen, spongy, and bleeding. Dr. Ramskill ordered chlorate of potash in fifteen grain doses in bark, three times daily. I saw the patient at her own house a week after this treatment had been commenced; she was now confined to bed and extremely feeble; the bleeding from the vagina continued; she was pale to a degree; the spots still existed, and every slight pressure caused the appearance of a bruise. In one respect most marked improvement had however resulted. The gums had become firm, adhered to the teeth, and for several days had ceased to bleed. Excepting that they were very pale, they were in a quite healthy condition. I am not able to state the final result of this case.

Cases 32 and 33.—In these two cases, after capital operations, I employed the chlorate of potash in half drachm doses, because on the fourth day the wounds had not assumed a healthy condition, were inflamed, and covered with tawny lymph. In the one the elbow-joint had been excised, and in the other the breast removed. In both the chlorate was continued for about ten days, and in both the patients did remarkably well, whilst taking it the wounds becoming covered with florid granulations. As in each case, however, the remedy was ordered at the exact juncture at which wounds after operations very commonly assume a healthy appearance, I would be far from wishing to infer that it caused the benefit which followed its use. One thing, however, is certain, that even in such full doses it in no way prevented the favourable progress of the patients.

These 33 cases, of which, at greater or less length, I have now brought the particulars before the Profession, comprise somewhat more than the half of the whole number in which, during the past year, I have made trial of the chlorate. The remaining 25 I am unable to adduce as evidence, because in about half of them, the patients did not attend a second time, and in the others the treatment pursued was so complicated that no safe inference could be made respecting the influence of any of its elements. Of those patients who did not attend again, I think it very probable, that most found themselves well at the end of the week's medicine; the list I am sorry to say, includes several cases of very great interest, and in which I had ordered the remedy in unusually large doses. Leaving here, then, the citation of cases, I will attempt a brief summary of the conclusions therefrom, but before doing so it will be convenient to say a few words on the

ADMINISTRATION AND DOSE OF THE REMEDY.

The Chlorate is fortunately a most easy medicine to administer. In solution in water, either plain or sweetened, it has but little taste, and is readily taken even by children. About 25 grains are soluble in an ounce of water, so that the very full dose of two scruples and a-half may be given in four tablespoonfuls. Its solubility I have ascertained by trial to be considerably greater than stated in Pereira and other books. Then comes the question, is it desirable to give it alone or in combination? Although in the cases cited I have administered it without adjuvant, in order the better to test its powers, I am far from wishing to advocate such a practice. It may easily be supposed that in not a few of the cases requiring its use, the employment of direct tonics may also be indicated. Still I do not recollect to have ever had occasion to regret that I had not given tonics together with it, and, in general, no better result could possibly have been hoped for that it alone produced. Those, therefore, who incline to prefer simple prescriptions are fully authorised in relying upon its unaided powers in cases really suitable for its use. It is difficult to discover, either from personal observation or from the reports of others, any symptoms which might be taken to indicate disagreement of the remedy. Indeed, its administration in most cases causes no perceptible effect except the disappearance of the disease. It probably acts slightly as a diuretic, and in proportionate degree causes thirst. In very large doses it purges young children, as has been shown in the case of a child aged 2, now under my care for cancrum oris to whom in the space of four hours I gave about a drachm of the salt.

AS TO DOSE

it is interesting to observe, that although the earliest cases recorded were treated successfully, and without casuality, by scruple doses to children, yet a strange dread appears to have since arisen, and it is now common to hear a grain to a year spoken of as an efficient and average quantity. Mr. Sayle, in the first case of phagedæna of the mouth on record, as treated by it, states that he gave scruple doses to a child six years old; but Dr. West, in his Lectures on "Diseases of Children," recommends only a grain to a year. Several of the cases just cited show in a remarkable manner, the failure of small doses

and the subsequent efficiency of larger ones. Perhaps, for infants of one year, about five grains might be a fair ordinary dose, and for those older it should be proportionately increased —a scruple or half a drachm being the quantity for an adult. From smaller doses than these I am convinced that disappointment will frequently ensure, and discredit be thrown upon the remedy. If the disease be an acute one, it will be desirable to push its employment, and this will be better done by giving the same dose more frequently, than by increasing it. If unduly increased there is danger, as has been seen, of the salt being carried off by purgation and its influence lost. Here I may remark, that it seems but justice to a remedy the virtues and potency of which are so indubitable, that it should always be fully pushed before being abandoned in cases in which it at first appears to fail. More especially does this obtain in cases of gangrene about the mouth, from whatever cause. In all such, I would, before giving it up, increase its dose and the frequency of its administration until obvious symptoms of disagreement presented themselves. Some cases on record have required enormous doses, and have yet yielded kindly when so attacked. It is certainly unfair to cite cases of its failure, if in adults it has not been pushed to an ounce a-day, and in infants to at least a drachm. I have no hesitation, whatever, in attributing the doubt with which its merits have been regarded by some of late to the very inefficient doses in which they have prescribed it. M. Gertin mentions, that once while in perfect health, he took, for the sake of experiment, a single dose of no less than two drachms, and that excepting a slight nausea next morning no inconvenience followed.

CONCLUSIONS.

The two following *Conclusions* appear to be warranted by the facts which have been adduced :—

1. That chlorate of potash possesses a peculiar influence over all inflammatory affections of the mouth. (The syphilitic, perhaps, excepted.)

2. That chlorate of potash possesses a peculiar influence over inflammations attended with phagedæna or sloughing, on whatever part of the body situated.

The second conclusion I would put with much less of positiveness than the first. It is when the two conditions are met with in combination, that its powers are best shown, that is, when the inflammation is of the ulcerative type, and has the mouth for its seat. As demonstrative of its especial influence on the mouth, we have seen it cure simple inflammatory congestion, common ulcerations, and phagedæna. The stomatitis of ptyalism, and the hæmorrhagic sponginess of the gums met with in purpura, both yield to its influence. Disorders, dissimilar as to cause, as to nature, as to stage, degree of severity, and tissue involved, and common only in being situate in the mouth, appear to be almost equally amenable to its control. Without attempting any explanation of it, such certainly appears to be the clinical fact. The facts relating to its power over ulceration and sloughing, in other parts of the body, are less positive, but still of considerable weight, and some of them would seem to indicate that suppurative inflammations might also be included in the category. I will not venture to make any enumeration of the very various diseases in which, should further experience confirm this belief, the use of the chlorate will be required. We have, in mercury, a remedy which all observation demonstrates to possess specific powers in arresting adhesive inflammation, and removing its consequent effusion of organized lymph. There are circumstances which might suggest to the sanguine mind, that it is not improbable but that the chlorate of potash will sometime attain a like reputation against all inflammation attended by the effusion of pus, or the destruction of tissue.

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Medical Times & Gazette.

SATURDAY, AUGUST 23.

MEDICAL SELF-REFORM.

All attempts at Medical Legislation having ceased for the present, it is not an unprofitable task to cast a general glance at the condition of the several Corporations which control the practice of Medicine and Surgery in this country, adverting, at the same time, to the social position and public relations of the very large constituency which composes truly the Medical Profession. It will be readily seen, that, much as the interference of Parliament may be desirable for the correction of some of the evils of which we complain, yet that there is infinite need of self-examination on the part of the corporations as well as of individuals ; and that a vigorous and sincere attempt at self-reform would not only anticipate many of the Legislative measures which are so eagerly demanded, but would also do much to elevate our Profession in the eyes of the public.

It must be admitted, in the first instance, as a matter of deep regret, that the great mass of the Profession are wholly without either a representative in the State, or even a voice in their own colleges. To this defect may be, in great measure, traced that want of harmonious action which we have so frequently to deplore, and that neglect of our interests in Parliament to which we have so often drawn attention. Yet the representative system, so far as it goes, works well for the Medical constituencies which possess it, as it will not be difficult to demonstrate.

The College of Physicians of London adopts the representative principle to a considerable extent, and did it not happen that the powers of that College are limited to a certain space around the British Metropolis, it might be stated that Physicians at least had a voice in the management of their own affairs. We are not disposed to quarrel with the College of Physicians because it does not, in its representative scheme, adopt the principle of universal suffrage ; and we are inclined to think that a selection of Fellows on the ground of distinguished talent, or of well-known character and reputation, is well calculated to strengthen the College in public estimation. The great objections, however, to the College system are, first, that its constituency is necessarily so limited as to embrace only a very small fractional part of British practising Physicians ; and, in the second place, that the selection of Fellows is made arbitrarily by the College, and that it does not necessarily result from the possession of distinguished talent. It may be added that the money-qualification for admission into the Fellowship is too high, more especially as the Members are compelled to pay a rather high fee upon their first entrance into the College.

In the College of Surgeons of England, the representative system has lately been introduced with considerable success, and, in progress of time, it may possibly work important and beneficial changes in the management of that Corporation. But, whereas the Fellowship of the College of Physicians is made to depend upon a high money-qualification, and a reputation, at least, for distinguished talent and learning, that of the College of Surgeons depends upon little more than the payment of a few pounds, the consequence of which is, that the Fellowship of the Surgeons' College is held in little esteem. It should, however, be remarked that this College has occasionally refused admission to the Fellowship ; and, it may be added, that it has made attempts, though certainly feeble ones,

to encourage superior abilities, both in general literature and Surgical science, among the Fellows.

In the University of London, which avowedly takes a very high position as an educational body, the representative principle is about to be introduced, and will, no doubt, materially tend to strengthen the attachment of its alumni to their parent; and, there can be no doubt, from the just reputation obtained by the degrees of this body, that its Medical Fellows will shed lustre upon their Profession. The Universities of Oxford and Cambridge possess the representative principle to a considerable extent; but the Medical element in these ancient seminaries of learning is so small as not to deserve much consideration.

In all the instances just enumerated, the advantages of the representative system may be traced in the successful resistance which has been made by each of the Corporations to any legislative measure which might be supposed to be in any way injurious to their interests; and this efficacy of combined action ought to afford a hint of a valuable kind to the great bulk of the Profession, who have no common principles, either of thought or action. If the different Corporations can combine their members to defend their own rights and privileges, the members of the Profession generally, who are now scattered and disunited, might combine together to defend theirs; and the united powers of so large a constituency might, if properly guided, act with overwhelming force upon public feeling, and upon the members of the two Houses of Parliament.

The General Practitioners throughout the country are wholly without representation, and their only strength lies in their individual honour, integrity, and skill. The Apothecaries' Act of 1815 affords them a certain degree of protection in the exercise of their Profession; but this Act is surrounded by so many difficulties in its practical administration, that numerous and just complaints are daily made of its inefficacy; and the present temper of Parliament is such that, instead of affording additional protection to the Medical Profession, it would willingly sweep away even that which already exists: so strong is the influence of quackery and of illegitimate practice in the British Senate!

The best advice to give to each and all the members of the Profession at present is, to work out, as far as possible, the principle of self-reform in the first instance. Let each person behave as if the eyes of all his Professional brethren were upon him, and carefully avoid every kind of conduct which is incompatible with a high principle of honour and integrity. In all the towns, cities, villages, and districts of the empire, Professional men should unite together for mutual support and protection: selfish feelings should be made to merge in the general good, and, on the principle that union is strength, we may yet see the day when our Profession may be bound together by the same ties of self-defence as have long existed in the sister Professions of Divinity and Law.

THE STOURBRIDGE BOARD OF GUARDIANS.

In the early part of the present year we drew attention to some rather unseemly squabbles which had taken place between the Stourbridge Board of Guardians and their Medical Officer, Dr. Walker. Under the influence of Mr. Graves, a Poor-law Inspector, a reconciliation appeared to be on the point of accomplishment; and we hoped that all unpleasantness had been amicably arranged.

It seems, however, from numerous documents which have been forwarded to us, that Dr. Walker has been made the subject of a series of petty persecutions, terminated by his dismissal from office as one of the Surgeons of the Stourbridge Union. The immediate cause of the latter step, which was taken by the Poor-law Board, appears to us, as far as we can judge from the evidence before us, to be a very frivolous one. It would appear that Dr. Walker was sent for by another Surgeon to assist in reducing a dislocation of the hip; and as Dr. Walker was known to be the Union Surgeon, and was avowedly acting in that capacity, an order for Medical Relief was given to him by the Relieving Officer as an authority for his rendering aid to the patient. But it was held by the Poor-law Board, upon technicalities not necessary to detail, that Dr. Walker was not justified in regarding the patient as a pauper, or, indeed, in interfering at all in the case; and was not entitled to the fee usually awarded in similar instances. All this may be true or false; but it seems to us monstrous, that such a mistake in judgment (supposing it to have been a mistake) should have been visited by a peremptory dismissal from office! We may add, that Dr. Walker having been compelled to resign, the Guardians elected Mr. Norris to the vacant post, he being the gentleman who had solicited the assistance of Dr. Walker in reducing the dislocation.

We regret very deeply the harsh manner in which the Poor-law Board has acted in this matter; we had imagined that that Board was the friend of the Union Surgeons when unduly oppressed by Boards of Guardians, and we expressed that opinion when alluding formerly to this very case. In the present instance, the Poor-law Board has joined the Local Board in what appears to be a course of cruel persecution.

THE WEEK.

Official reports have arrived from India during the week, stating that bands of lepers are roaming over the Punjaub, and obtaining all they desire from the terrified inhabitants by threatening to bathe in the wells. It is said that an "asylum" is to be built, and that the lepers will be strictly segregated as soon as it is ready. Surely the Indian Government should appoint a Medical Commission of investigation and treatment in the meantime. It would be interesting to determine whether the disease be really contagious, for we know nothing of contagious leprosy in this country; and wherever it has fallen under our own observation in various climates, it has always appeared to depend rather upon hereditary transmission, or unhealthy condition of the locality, with privation, than upon extension by contagion.

We have received a great number of Reports from the Medical Officers of Health of the various Metropolitan districts, and we are gratified to record the zeal and ability with which these functionaries appear to discharge their duties. The investigation of the causes of disease has necessarily brought to light a host of noxious influences, which have long been well-known to the Profession, but which hitherto have been unnoticed by the local authorities. The fearless manner in which the Medical Officers of Health have exposed the reeking abominations by which disease and death are unnecessarily multiplied around us, deserves the thanks of the community and the different Vestries will no doubt apply the proper remedial measures as soon as possible. In general, the Reports of the Medical Officers have been printed and published for general information, but in some districts, which we might name, the Report has been presented and printed, and immediately suppressed! The reason for this suppression in certain cases, is of the most selfish kind, and is to be found in the antipathy of some of the Vestrymen to admit of the existence of any nuisances in their own property! Thus these *independent* gentlemen would risk the health of their neighbours and of the poor rather than yield with a good grace to the requirements of Sanitary Science.

The Select Committee of the House of Commons appointed to examine into the adulteration of food, drinks, and drugs, have at last brought their labours to a close, by the production of a Report, part of which we have transferred to our columns. The recommendations of this Committee are of a very mild description; and, although a formidable list of adulterations is set forth in the preamble of the Report, the only persons hinted at, rather than designated, who are to suppress and punish the vendors of spurious articles, are the "municipal or other local or district authorities." We are happy to find that the Report denounces the sale of patent medicines as injurious to the public health, and condemns the sanction of these nostrums on the part of the Government by a stamp-duty, which, the Committee recommend, should be abandoned, if this can be done "with a due regard to the public revenue." The sale of poisons is another subject handled by the Committee, who think that the Legislature should interfere to prevent this dangerous traffic. On the whole, the Report has disappointed us, though it contains, *en résumé*, a great amount of useful information, which might have led to more important results.

It is with great regret that we notice the postponement of Mr. Snape's trial until the next Session. We feel for the inconvenience and expense which must be incurred by that gentleman by the delay of judicial proceedings; and we understand that he has been suspended from his employment, and that his salary has been stopped. An application was made on Monday at the Central Criminal Court to discharge Mr. Snape's recognizances, on the ground that the prosecution has been abandoned for the present Session; but the application was refused. We believe that this refusal, although somewhat ungracious, does not make any practical difference in the results to Mr. Snape; and it is by no means unlikely that the Grand Jury will ignore the bill against him.

A proposition has been laid before the Duke of Cambridge, as Commander-in-Chief of the Army, to provide for our wounded and invalid Soldiers the advantage of thermal springs, in Sanatoria, situated in different parts of the country, as at Bath, Cheltenham, Leamington, and Harrogate. The system of treating gun-shot and other wounds, painful stumps, and chronic rheumatism, by the use of thermal waters, is already extensively practised in the case of the French, German, and Sardinian armies, and Dr. Pincoffs, who has lately returned from Scutari, and who has had extensive experience in the therapeutical benefits derivable from mineral waters, has been in communication with different persons in authority, with a view of introducing the system into this country. This plan has already received the encouragement of several influential persons, and it is hoped that the Government, in its anxiety to promote the welfare of the disabled soldier, will readily adopt a suggestion which will, probably, lead to a very much improved treatment of disease occurring among the military. A paragraph which lately appeared in the daily journals, stating that a number of soldiers would be sent to Bath for the benefit of the waters, was altogether premature, and originated in Dr. Pincoffs' visit to that city; but it is to be wished that the plan may be realized.

REVIEWS.

The Causes and Curative Treatment of Sterility; with a Preliminary Statement of the Physiology of Generation. By Augustus K. Gardner, A.M., M.D. Pp. 170. New York.

This book contains an account of the physiology of generation, of the causes of sterility, and of the cure of that defect. The author exhibits a considerable amount of acquaintance with the literature of the subject, but adds little or nothing to what is already known. The usual causes of sterility, as diseases and malformations of the female sexual organs, are matters with which the Medical world has long been acquainted, and the treatment of such affections may be found discussed by most writers on Obstetrics. But there are other latent causes of sterility besides those which are apparent to the pathologist, and these mysteries Dr. Gardner does not attempt to unravel. The coloured plates, exhibiting some diseased conditions of the uterus and of the os uteri, are good, and there are also many woodcuts illustrative of the matters discussed in the book.

The Progress of Preventive Medicine and Sanitary Measures; being the Thurston Speech on the Wendy Commemoration at Caius College, delivered on May 10, 1856. By A. W. Barclay, M.D., Medical Officer of Health for the Parish of St. Luke, Chelsea. Pp. 35. Cambridge. 1856.

At the present time, when it is necessary to diffuse throughout the community correct notions of sanitary science, we are happy to commend Dr. Barclay's pamphlet to public attention. He has embraced within a small compass much valuable information upon hygiene, and his observations exhibit a thorough acquaintance with the causes which injure or improve the health of the population.

Criminal Lunatics; are they Responsible? being an Examination of the "Plea of Insanity," in a Letter to the Right Hon. the Lord High Chancellor. By J. Russell Reynolds, M.D. Pp. 39. London. 1856.

In a somewhat elaborate argument upon the subject of the diagnosis of insanity and the responsibilities of the insane, Dr. Reynolds seems to lean to the opinion (analogous to that which has been expressed in this Journal) of a limited responsibility even in the case of weak-minded persons; and he also strongly urges the necessity (which we have also pointed out) of *preventing* the insane or weak-minded person from the perpetration of crime by timely restraint. Dr. Reynolds' pamphlet will repay perusal.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON IRREGULAR CONTRACTION OF THE UTERUS

By Dr. CHANNING.

Dr. Channing observes, that he never now meets with the hour-glass contractions he supposed to occur in his earlier practice. The following is his account of the nature and cause of these irregular contractions:—"In these cases referred to the following facts have been observed:—They have most generally occurred in first labours. Everything has proceeded naturally, it may be, through all its stages. The after-birth has been expelled, and the patient may have been arranged in her bed. Sometimes, however, before this, pain may have been complained of. This increases until it amounts to agony, with expulsive efforts. The abdomen is examined externally. In about its middle, or higher, a hard, ball-like tumour is felt, very sensitive, and easily distinguished from everything about it. Below this, the abdomen feels soft, and bears pressure without any complaint. Not a sign of hæmorrhage is present. We think of after-pains, and of their accidental exaggerations. But it is a first labour—a perfectly natural one—and after-pains are rare under such circumstances. We examine per vaginam. Severe suffering is complained of. We have scarcely entered it when a firm obstruction is encountered. We proceed along one of its sides, and discover a very large coagulum. We go on, and at length feel the firm, contracted portion of the womb above. The open hand is now passed above the coagulum, and slowly presses it downwards and out. Relief is instantaneous. Slowly the hard tumour descends, under regular but insensible contraction, and gets its natural place above the symphysis. Rarely is relief expressed so completely as after this operation; not even when the head is passing the external organs. These cases strikingly resemble each other, and

when once seen they will always afterwards be easily recognised."

This condition may be confounded with retained placenta, inverted uterus, severe after-pains, and internal hæmorrhage. Of the first of these the author gives instances, and the characters of inversion of the uterus are sufficiently obvious to prevent error. After-pains do not usually follow first labours, and when present in severity they probably depend on irregular contraction, with retention of coagula in the uncontracted portion; while, in other cases, when retention of urine has been present, the uterus takes on pseudo-expulsive action. The internal hæmorrhage met with in this case differs from that usually so designated. Thus there is sudden and severe pain, and faintness is very rare, and rather due to prior exhaustion than to the loss of blood, which is much less than in ordinary hæmorrhage. There is not the enlargement of the abdomen, and it has not the same firmness, except at the spots where the contraction exists, where, indeed, it is much firmer. Elsewhere it is soft and is not tumid. The flow is slight at first, and the blood coagulates as it takes place. It is forced down into a solid mass through the dilated os into the vagina, becoming firmer and firmer, until at last it gives rise to strong painful contractions, for the purpose of obtaining its expulsion. The diagnosis is still further aided by the perfect relief that follows the removal of the coagulum. In none of the cases has secondary hæmorrhage, so common in ordinary hæmorrhage, been met with; and there is here a feeling of safety which does not attach to ordinary cases.

Boston Journal, Vol. LIV. pp. 309—18.

ON ŒDEMA GLOTTIDIS RESULTING FROM TYPHUS FEVER.

By Dr. EMMET.

Dr. Emmet, Physician to the Emigrants' Hospital, Ward's Island, New York, has contributed a valuable paper on this affection, which he describes as occurring secondarily in typhus under two conditions:—

"The most frequent form met with is that following laryngitis, the result of reactive ulceration of the mucous membrane of the air-passages, in consequence of typhous deposit. In this condition, general and profuse bronchitis is persistent throughout the course of the fever, and is often accompanied by pneumonia. The infiltration takes place gradually, before convalescence has been established—usually between the second and third week, and does not reach its height for several days. The other variety is a consequence alone of the debilitated condition in which the patient is left after the primary disease has subsided. Convalescence has been slowly taking place, when, coincident with some exertion, or on suddenly assuming the upright posture, asphyxia occurs, and death results in a few moments.

"The areolar or cellular tissue is very abundant throughout the glottis, and terminates almost abruptly along the under border of the larynx. At this point, when resulting from a debilitated condition (the cellular tissue being pervious), the œdema gravitates, and is usually found most extensive. The effusion gradually accumulates to a certain point, without producing much or any irritation, until, by muscular action, the quantity is suddenly increased, and spasmodic closure results. Occasionally, at the upper border of the glottis, or on the epiglottis (when depending upon a slight local inflammation) the serum accumulates under the mucous membrane in a vesicular or cellular form, the vesicles not seeming to communicate freely the one with another. Several of these, closing together by accident or gravitation, will form a valve-like arrangement, becoming the more perfect with every effort of inspiration. When infiltration is the result of the reactive inflammatory action of laryngo-typhus, the surface of the mucous membrane is more generally elevated, smooth, and unyielding; thus equally closing the course of the passage throughout."

It has been said, that in œdema of the glottis inspiration alone is difficult and sonorous, while expiration is free. This is only the case when the œdema exists principally about the epiglottis and upper part of the larynx, being due to the extension of inflammation from the fauces or to the inhalation of irritating substances. As a result of situation, and the prominent or vesicular form of the œdema, with each act of inspiration a valve is formed closing from above downwards. When the infiltration is more general, and caused by acute laryngitis, typhous deposit, etc., it may or may not extend to the epiglottis and its vicinity, while a more equable diminution of calibre is produced, and both inspiration and expiration will be very nearly equally affected. In the asthenic form, the accumulation having gravitated (which it always will do when existing independently of an inflammatory obstruction) it hangs free, as a sac in the trachea. While this condition materially lessens the area, it offers but little obstruction comparatively to inspiration, expiration being in every case unnaturally prolonged, and difficult in proportion to the extent of the accumulation. This seems to be in consequence of the upward pressure from behind, in the outward passage of the air, as elosure of a semilunar valve is produced by regurgitation. As the difficulty increases, it is easy to conceive, that beyond a certain point, the sac would cease to be moveable as a valve, and both acts of respiration (if complete asphyxia have not already supervened) would be equally affected, while the application of a stethoscope, in a case of doubt, would determine with much certainty the exact point involved.

The author feels certain that, when there is defective reaction, this affection is produced after many diseases, as a consequence of debility, and may be a cause of death much oftener than is suspected. He especially directs attention to the examination of this point in cases of sudden death after typhus, produced by raising the patient, and usually explained by some supposed disturbance of the circulation.

As to the operation, he observes that a review of the cases he adduces shows that a more favourable issue is likely to follow it, when employed for the relief of the asphyxia following simple œdema, than that resulting from the local cause. In the tables, it is shown that, in every fatal case of laryngo-typhus, bronchitis existed; and, further, that it invariably recurred after operating, as soon as reaction was established. The result was different where convalescence had already taken place, as the reactive inflammatory tendency had subsided; while there is little likelihood of its being again established from this cause, even if bronchitis had previously existed. He believes that the opening is best made through the thyro-cricoid space; it being a far more simple and effective operation than tracheotomy; while being below the point of the œdema, the risk of establishing inflammatory action is not materially increased.

During five years Dr. Emmet, in 1931 cases of typhus, has met with 23 cases of œdema from laryngo-typhus, and 7 of simple œdema from debility. Of this number 19 recovered and 11 died. There were 5 operations performed, 3 of the patients dying and 2 recovering. The ages of the patients ranged from 12 to 47, the mean age of the whole being 24.

American Journal of Med. Science. Vol. XXXII. pp. 63—81.

EXCERPTA MINORA.

Choking Treated by Gastric Juice.—Mr. Ellsworth relates two cases of choking induced by animal substances, which were effectually relieved by pouring down, at short intervals, a tea-spoonful of the gastric fluid obtained from recently-killed pigs.—*Boston Journal*, Vol. LIV. p. 212.

Oil of Erigeron in Uterine Hæmorrhage.—Dr. Livezey states that he has met with great success in the employment of this substance, which has been used for many years by Dr. Sites. Five drops of the oil dissolved in a tea-spoonful of alcohol, sometimes act almost instantaneously. A second dose, when required, which it rarely is, may be given in ten minutes. He believes its *modus operandi* is similar to that of ergot, but, being a volatile oil, its action is more rapid.—*Ibid.*, p. 217.

Lobelia and Antimony in rigid Os Uteri and Perinæum.—Dr. Batchelor relates some cases in exemplification of the great success that has attended the administration of the tartrate of antimony and lobelia as a *dernier ressort* in obstinate rigidity of the os uteri and perinæum. The following is the formula:—Fresh, well-powdered lobelia ʒi., tart. emetic gr. v. Mix well, and add from 12 to 15 grains of this powder to 4 or 5 ounces of thin starch, with 8 or 10 drops of laudanum. This, thrown up into the rectum, generally suffices, but in some cases requires repetition. He has employed this combination with success in nine cases, and in eight others he has used the antimony and laudanum alone also with good effect.—*Ibid.*, p. 289.

Treatment of Varicose Veins.—M. Thierry says that the best mode of treating the tumours or varicose state of the saphena veins consists in the application of a blister to the varicose tumour, and, having raised the epidermis, applying a

thin layer of the perchloride of iron. After this, simple dressing is all that is required, and the tumour rapidly diminishes in size; and even when the cure is not always permanent, this treatment is still the best.

Moniteur des Hôpitaux, No. LXXXVI.

GENERAL CORRESPONDENCE.

TARTAR EMETIC IN CROUP.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have been as much surprised as Mr. Prior, at the letters of Dr. Elliotson, and many who have followed in his wake. The very heroic treatment of croup adopted by these writers has been more than I have dared to act upon for many years past.

Croup, I apprehend, has of late years partaken of an alteration in its type, in common with all other diseases. Twenty years ago the treatment I was taught, and carried into practice, was depletion, tartar emetic, calomel, etc. I was not long, however, without witnessing several instances of alarming depression from the influence of tartar emetic, and have not since ventured to administer it to young children. I should be very slow to admit that the accurate observers who preceded the present generation persisted in wrong therapeutic principles. The practical conclusion forced upon me is that croup does not now require the energetic treatment formerly called for by this disease. In the London *Medical Gazette*, June 21, 1850, in an article on the "Treatment of Croup," I expressed the same opinions with regard to the use of tartar emetic, and advocated the employment of ipecacuanha, as being equally efficient, and much safer. I am, &c.

W. B. Kesteven.

Upper Holloway, August 16, 1856.

THE LATE RETROGRADE MOVEMENT AT THE ROYAL MEDICAL BENEVOLENT COLLEGE.

[To the Editor of the Medical Times and Gazette.]

Sir,—In justice to those who may entertain opposite opinions to myself, I forward for publication two letters just received from the Lord Bishop of Winchester, in reply to mine of the 12th and 14th inst.

It is now for the general body of Governors to decide whether a fundamental law of the Institution shall be altered by a majority at any one meeting, especially when the new rule (as in the late instance) has the oppressive character of a retrospective action. I am, &c. W. A. Cattlin, F.R.C.S.

9, Sebbon's-buildings, Islington, August 18, 1856.

(Copy.)

Farnham Castle, August 14, 1856.

Sir,—I have to acknowledge the receipt of your letters of the 12th and 14th inst. The matter to which you refer does not fall within my province as Visitor of the Royal Medical Benevolent College. It is a detail of business which it properly belongs to the Governors to settle definitively, and into which I can in no way interfere.

I am, Sir,

Your very faithful servant,

W. A. Cattlin, Esq. (Signed) C. Winton.

(Copy.)

Farnham Castle, August 16, 1856.

Sir,—When I wrote to you this morning, I had not adverted to the fact that the resolutions passed at the meeting of the 11th inst. involve alterations in the Bye-laws, and, therefore, by the Act of Incorporation require to be confirmed by me as Visitor. But I am bound to add I have no difficulty in confirming them. One of them appears to me to be necessary in order to carry out the objects of the Institution, and all likely to be beneficial to the College.

I am, Sir,

Your very faithful servant,

W. A. Cattlin, Esq. C. Winton.

TWENTY-SIXTH MEETING OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The Meetings of this Association commenced on Wednesday, August 6, at Cheltenham, when a large company assembled.

The Treasurer's Report, which was received and adopted, was as follows:—From the 12th of September, 1855 (at Glasgow), to the 6th of August, 1856 (at Cheltenham). *Receipts:* To balance brought on from last account, £817 1s. 8d.; Life Compositions at Glasgow and since, £359; Annual Subscriptions, ditto, £422; Associates' Tickets at ditto, £1094; Ladies' Tickets, ditto, £543; Composition for future Publications, £5; Dividends on Stock (12 months), £161 11s.; received Proceeds of Sale of, £769 10s. 3 per cent. Consols, £732 13s. 5d.; from Sale of Publications, £141 15s. 9d.; total, £4276 1s. 10d. *Payments:* By paid Expenses of Glasgow Meeting, sundry Printing, Advertising, and Incidental Payments, by General Treasurer and Local Treasurers, £349 6s. 7d.; Printing Report of the 24th Meeting, Engraving, etc., £607 19s. 2d.; Engraving, etc. for Report of the 25th Meeting, £26; Salaries (12 months), £350; Purchase of £2269 10s. 3 per cent. Consols, £2000; Maintaining the Establishment of Kew Observatory, viz.—Balance of Grant, 1854, £75; Grant, 1855, £500; Ornithological Synonyms, £100; Dredging and Dredging Forms, £9 13s. 9d.; Chemical Action of Light, £20; Periodical Phenomena, £10; Strength of Iron Plates, £10; Propagation of Salmon, £10; Balance at Bankers, £192 5s. 5d.; ditto in the hands of the General Treasurer and Local Treasurers, £15 16s. 11d.; total, £4276 1s. 10d.

The Report of the Parliamentary Committee stated, the main building at Burlington House had been placed by the Government at the disposal of the Royal Society, on the understanding that they accommodate the Linnean and Chemical Societies with rooms therein; and the west wing will be converted into a capacious hall, which is to be occupied by the Royal Society at all times when it is not required for the examinations and public meetings of the University of London.

On the question "Whether any measures could be adopted by the Government or Parliament that would improve the position of science or its cultivators?" the Report stated that, during the last session of Parliament, it was brought before the House of Commons by Mr. Heywood, as an individual member of the House, and not as representing your Committee. The discussion of our Report by the Committee of Recommendations at Glasgow in September last, the result of the debate which took place in the House of Commons on the occasion last referred to, and subsequent communications with members of the Legislature, have combined to convince us,—1st. That men of science have as yet formed no definite opinion on the important question raised in the Report; and, 2ndly. That, until such a result be obtained, it is improbable that any important improvement will be effected in the position of science or its cultivators, either through the agency of the Government or Parliament.

The Earl of Burlington and Lord Stanley were elected to fill vacancies in the Committee, caused by the deaths of Lord Cathcart and Sir John Johnstone.

Professor Daubeny, on taking the chair, delivered the President's address, a document which does not admit of curtailment, and which we can only characterize as a most masterly review of the progress of physical science, especially in the domains of chemistry and botany.

In the Section of Mathematical and Physical Science a Report of a Committee, consisting of Messrs. A. Cayley, R. Grant, and G. G. Stokes, to consider the formation of a Catalogue of Philosophical Memoirs, was brought up. The Committee were appointed—on the occasion of a communication from Prof. Henry, of Washington, containing a proposal for the publication of Philosophical Memoirs scattered throughout the Transactions of Societies in Europe and America, with the offer of co-operation on the part of the Smithsonian Institute to the extent of preparing and publishing, in accordance with the general plan which might be adopted by the British Association, a Catalogue of all the American Memoirs of Physical Science—to consider the best system of arrangement, and to report thereon to the Council.

On Isothermal Lines, by Professor Hennessy.—After some preliminary remarks as to the general influence of

the distribution of land and water on the forms of isothermal lines, the author proceeded to discuss the distribution of these lines in islands. By considering an island situated so as to have its shores bathed by a warm oceanic current, if the influence of direct solar radiation be obstructed, it appears that the isothermals would be closed curves surrounding the centre of the island and having some relation to its coast line. The influence of ranges of mountains, and in general of inequalities in the surface of the island, as well as the modifying action of general winds, and the resulting changes in the shapes of the isothermals, were explained. By the introduction of solar radiation it now follows from the mathematical theory of heat that the entire quantity of heat received by a unit of surface of the island will depend on two principal terms: one, a function of the distance of the point from the coast, and capable of being expressed in some cases as a function of the difference of latitude of that point and the nearest point on the coast,—and, secondly, of a term depending on the latitude and on an elliptic function of the second order, having for its modulus the sine of the inclination of the equator to the ecliptic. It hence follows that the effect of solar radiation will be to transport the centres of all the closed isothermals towards the pole of the hemisphere in which the island is situated. Prof. Hennessy then proceeded to show that the isothermals of Ireland strictly conformed to his theory. On discussing the observations collected and arranged by Dr. Lloyd in his "Memoir on the Meteorology of Ireland," it appears some of its isothermals are actually closed curves, while others terminate at points on the coast, the shortest being closest to the equator. The physical structure of Ireland, and the difference of nearly 4° between the temperature of the seas bathing its shores and the air above them, rendered it probable, *à priori*, that Ireland should present a good example for the application of the theory.

On the Form of Lightning, by Mr. J. Nasmyth.—Mr. Nasmyth said that, observing that the form usually attributed to lightning by painters and in works of art was very different from that which he had observed as exhibited in Nature, he was induced to call attention to it. He believed the error of the artists originated in the form given to the thunderbolt in the hand of Jupiter, as sculptured by the early Greeks. The form of lightning, as exhibited in Nature, was an irregular, curved line, shooting from the earth below to the cloud above and often continued from the cloud downwards again to another distant part of the earth. This appearance, he conceived, was the result of the rapidly shooting point of light, which constituted the true lightning, leaving on the eye the impression of the path it traced. In very intense lightning, he had also observed offshoots of an arborescent form to proceed, at several places, from the primary track of the flash.

This communication gave rise to an animated discussion, as to whether or not the flash of lightning was the effect of a rapidly-moving point of light or not? and, if so, whether the direction was, as stated by Mr. Nasmyth, in nine cases out of ten, from the earth to the cloud, or the contrary?

Supplemental Report on Atmospheric Currents at Liverpool, by Mr. F. A. Osler.—The paper related to the diurnal laws of the wind, when referred to sixteen points of the compass, and gave the mean records obtained from upwards of 70,000 hourly observations. From these it appears that, at Liverpool, the various winds have their maximum and minimum velocity at definite and generally different hours. Thus, the E.N.E. wind attains its maximum about 5 p.m., the E. at 9 p.m., the E.S.E. at midnight, the S.E. at 6 a.m., S.S.E. at 10 a.m., S. at 12 noon; and the minima occur at intervals of about twelve hours from each of these respectively. The N., N.E., and S.S.W. have two maxima and two minima in the twenty-four hours. In most cases, the maximum velocity exceeds that of the minimum in the ratio of nearly 2 to 1. On Photographs Illustrating a New Process of introducing Clouds and Artistic Effect, by E. Vivian. The result was extremely pleasing; the concentration of light and shadow, and the introduction of middle tint, effecting as fresh an improvement upon the ordinary photograph as the tint stone does in double lithography; thus enabling the photographer to compose pictures in accordance with the rules of art, without the least sacrifice of detail, or departure from the truth of the original negative, so far as the latter is true to nature; supplying the deficiency of the yellow ray, and modifying that of the blue, thus reducing the actinic image to the chiaroscuro of the visual, by toning down the glare produced by the reflection of blue light on foliage, and the unnatural whiteness of slate roofs, water, etc., and affording the means of introducing skies and aërial effects of equal force and delicacy. A plate once prepared may be used for printing any number of positives without further re-touching. In the Section of Chemical Science, the following papers were read:—On the Compounds of Chromium and Bismuth, by Mr. W. R. Pearson. On the Conversion of Tannin into Gallic Acid, by Mr. J. Horsley. On the Corrosive Action of Smoke on Building Stones, by Dr. A. Voelcker. Notes on Nitroglycerine, by Dr. Gladstone. On the Composition of American Phosphate of Lime, by Professor Voelcker. On Basic Phosphates of Lime, by Professor Voelcker. On Dichromatic Phenomena, exhibited by Coloured Matters in Solution, by Dr. Gladstone. On the Constitution of Paraffine from different Sources, by Dr. Anderson. On a new Combination of Carbon, Oxygen, and Hydrogen, formed by the oxidation of Graphite; and on the appearance of Carbon under the Microscope, by Mr. B. C. Brodie. On the Detection of Strychnine, by Dr. S. Macadam. This paper was illustrated by experiments.

On several new Methods of detecting Strychnia and Brucia; a New Method of Extracting the Alkaloids from Nux Vomica, for Toxicological and Manufacturing Purposes. Experiments on Animals with Strychnia, and probable Reasons for non-detection of Strychnia in certain cases. A new Method of Instituting post-mortem Researches for Strychnia, by Mr. T. Horsley.—In the first lecture Mr. Horsley observed that the circumstances attending Palmer's trial induced him to make a series of experiments on the subject, and he tried the effects of a precipitant formed of one part of bicromate of potash dissolved in fourteen parts of water, to which was afterwards added two parts in bulk of strong sulphuric acid. This being tried upon a solution of strychnia, the bulk was entirely precipitated in the form of a beautiful golden coloured and insoluble chromate. The experiment, as performed by Mr. Horsley, was very interesting, and scarcely a trace of bitterness was left in the filtered liquor. He did not claim to have originated this discovery of the use of a chromic salt and an acid liquor; but the point to which he called attention was the essential difference in the mode of application, and he maintained that it was as much out of the power of any human being to define the limit of sensibility which he had attained, as it would be to count the sands or to measure the drops of the ocean. Taking thirty drops of a solution of strychnia containing half a grain, he diluted it with four drams of water. He then dropped in six drops of a solution of bicromate of potash, when crystals immediately formed, and decomposition was complete. Splitting up the half grain of strychnia into millions of atoms of minute crystals, he said that each of these atoms, if they could be separated, would as effectually demonstrate the chemical characteristics of strychnia as though he had operated with a pound weight of the same. He then showed the chemical reaction with those crystals. Dropping a drop of liquor containing the chromate of strychnia into an evaporating dish and shaking it together, he added a drop or two of strong sulphuric acid, and showed the effect as previously noted. He next showed the discoloration produced in chromate of strychnia and chromate of brucia by sulphuric acid, the former being changed to a deep purple and then to a violet and red. It had been asserted, since the trial of Palmer, that the non-detection of strychnia in the body of John Parsons Cook was owing to the antimony taken by the deceased having somewhat interfered with the tests. Such a supposition was, in his (Mr. Horsley's) opinion, absurd. Nothing, he considered, could more incontestably disprove the fallacy than either of the two new tests which he then performed. These he considered double tests, because they had first the obtainment of a peculiar crystalline compound of strychnia, which was afterwards made to develope the characteristic effects by which strychnia is recognised. Mr. Horsley next related a series of experiments which he had made on animals with strychnia, and entered into the probable reasons for its non-detection in certain cases, although (as he had just shown before) a method of detecting infinitesimal quantities of strychnia by tests. He procured three rats at seven o'clock p.m., he (assisted by Dr. Wright) gave each rat a quarter of a grain of powdered strychnia, and two hours afterwards a quarter and half a grain more to one of the three. Next morning at four o'clock they were all alive, and had eaten food (bread and milk) in the night, but at seven, or a few minutes after, they were all dead. The longest liver was

one of the rats that had only had a quarter of a grain. In about three hours afterwards he applied the usual test, but could not detect the least indication of strychnia in the precipitate. There was, moreover, a total absence of bitterness in all the liquor. He tried every part of the bodies of the rats with the like results. What, then, became of the strychnia? Had it been decomposed in the organism, and its nature changed, as Baron Liebig intimated? As to the non-detection of strychnia, he thought it not improbable that the strychnia might have become imbibed into the albumen or other solid matter, and so abstracted from the fluid, forming by coagulation (say, for instance, in the blood) a more or less insoluble albuminate. This idea had occurred to him from noticing the coagulation of the glairy white of egg with strychnia, and the fact of his not recovering the full quantity of the alkaloid whenever he had introduced it. At any rate, it merited consideration. In his second experiment he administered three-quarters of a grain of strychnia to a wild rat, but the animal evinced little of the effects of poison, and it was purposely killed after five days. His third experiment was with two grains of strychnia, administered as a pill wrapped up in blotting-paper, to a dog—a full-sized terrier. It was apparently quite well for five hours, when the operator went to bed, but was found dead next morning, but lying apparently in the most natural position for a dog asleep. When taken up blood flowed freely from its mouth. On opening the animal (continued Mr. Horsley) I found the right ventricle of the heart empty of blood, whilst the left was full, some of the blood being liquid and some clotted. The stomach was carefully secured at both its orifices, and detached. On making an incision, I was surprised at not seeing the paper in which I had wrapped the pill, naturally expecting it would have been reduced to a pulp by the fluid of the stomach. I, therefore, sought for it, and lo! here it is, in precisely the same condition as when introduced into the gullet of the dog, and containing nearly all the strychnia. I have been afraid to disturb it until I had exhibited it to you, and now I will weigh the contents, and ascertain how much has been absorbed or dissolved. This experiment is important, as showing the small quantity of strychnia necessary to destroy life; and, had I not been thus particular to search for the paper envelope, it might, possibly, have led to a fallacy, as I must have used an acid, and that would have dissolved out the strychnia, and the inference would have been that it was obtained from the contents of the stomach, whereas it had never been diffused. In this case also, none of the absorbed strychnia was detectable in the blood or any part of the animal, although the greatest care was observed in making the experiments. The talented lecturer, who was listened to throughout with great attention, added that he had made further experiments, which, he thought, proved that it was highly probable a more or less insoluble compound of organic or animal matter with strychnia is found.

Photo-chemical Researches, by Professor Bunsen and Dr. H. E. Roscoe. On Albumenized Collodion, by Mr. W. S. Ward. On an Attempt to engrave Collodion Photographs by means of Hydrofluoric Acid Gas, by Mr. C. Pooley.

THURSDAY.

In the section of Zoology and Botany, Dr. Lankester read a paper from Prof. Henfrey, On the Development of the Embryo of Flowering Plants.—In this paper Prof. Henfrey announced that Prof. Schleiden and Dr. Schacht had given up their opinion that the end of the pollen-tube produced the embryo in the seeds of flowering-plants; and had come to the conclusion that the embryo is formed from a distinct protein mass, contained in the embryo sac. He also pointed out that the embryo mass does not become a regular cell covered with cellulose till after the pollen-tube has come in contact with the embryo sac.

Experiments and Observations on the Development of Infusorial Animalcules, by Mr. J. Samuelson, Honorary Secretary to the Royal Institution (Literary Society), Hull.—The author mentioned, that, in March last, he had traced in rain-water the growth of an infusorial animalcule, called *Glaucoma scintillans*, from one of the so-called monads of Ehrenberg, and, aided by a diagram, pointed out its gradual development; explaining, at the same time, the action of the internal organs, such as those of digestion, etc., and the differentiation in structure which takes place as the animalcule grows older. He stated, that he had fed these invisible forms with vegetable cake, in the first instance, and under the microscope with indigo, so that the process of digestion was rendered visible (the latter is a mode which has, for some time, been adopted by microscopists). Another phase in the existence of the animalcule was then described by the author, namely, the encysting process; also, the subsequent appearance of numerous examples of Kerona, a form of a higher character than Glaucoma, which the author believed to be the result of the process just named. Having obtained this glance at the life of Glaucoma, Mr. Samuelson then tried (at the suggestion, he said, of Mr. Robert Hunt) what effect the rays of the sun would have, when filtered through variously-coloured glasses, in accelerating or retarding animalcular life. For this purpose he fitted up a box containing three compartments, covered by a pane of blue, red, and yellow glass respectively; and he found that while under the blue and red glass infusorial forms were rapidly developed, under the yellow hardly any signs of life were visible. He then transferred a portion of the infusion from the yellow to the blue compartment, when the infusorial forms very shortly made their appearance. After this he varied the experiment, employing distilled water and finely-cut hay, when the same results were even more strikingly exhibited. The temperature, he said, under the three compartments varied on the average about three degrees, though frequently the variation was greater, the blue always being the lowest. After mentioning one or two other circumstances connected with the experiment, Mr. Samuelson concluded with a review of the results, and observed that if they should be confirmed, that is, if the differently-coloured rays could be proved to operate variously upon animal and vegetable life (to which he also adverted in the course of his paper), much new light would be thrown on the debatable ground between the two kingdoms. An animated discussion followed. In respect to various theories concerning the digestive process in Infusoria, Dr. Williams inclined to think that all aliment entered their bodies in a fluid state, by endosmosis, while the President and the author of the paper supported the generally acknowledged theory of its admission into a kind of gullet.

On the Morphological Relations of the Nervous System in the Annulose and Vertebrate Types of Organization, by Prof. Goodsir.—This paper was one of a series in which Prof. Goodsir reviewed the whole subject of the homologies of the animal kingdom, and proposed a new set of terms whereby to distinguish each system and part of a system.

Dr. Lankester read a paper from Mr. Albany Hancock, On the Anatomy of Brachiopoda. In this paper the author controverted Prof. Owen's opinion on the structure of these creatures, and confirmed that of Mr. Huxley, with respect to the nature of the little bodies which Prof. Owen had described as hearts.

On the Fluid System of the Nematoid Entozoa, by Dr. Williams. In this communication the author mentioned the leading facts:—1. That, especially in the genus Ascaris, the peritoneal cavity was occupied by a peculiar vesicular tissue, opening on the integumentary exterior, which appeared to be adapted to absorb fluid from without;—2. That it filled up that space which in the Annelids was free, and filled with an oscillatory fluid;—and 3. That in the Nematoid Entozoa there did not exist any trace whatever either of a blood-vascular or a water-vascular system.

Professor Busk stated that in the Guinea worm and some other forms of Entozoa there was a digestive cavity; and he thought Dr. Williams' conclusions were too general.

In the section of Economic Science and Statistics, Lord Stanley, President of the section, pronounced an opening address, in which he advocated the establishment of a statistical department of Government, charged with the annual publication of such facts relative to the management of national affairs as are reducible to numerical expression. We have statistics enough presented to Parliament every session, but they are, in the great majority of cases, called for by individuals. They are drawn out to suit the particular purpose of those who move for them; they are accordingly deficient in unity, and often of no use beyond the moment. Now, I speak (said Lord Stanley) from some personal observation when I say, that at a cost hardly greater than that of these desultory, fragmentary, isolated returns, it would be possible to present to the nation such a yearly *résumé* of administrative statistics as should, to a very great degree, supersede the present system (if system it can be called) of

moving for returns as and when they are wanted. In proportion, therefore, as numerical is substituted for descriptive statement, we approach nearer to that otherwise impracticable dream of philosophers—a Universal Language. There is, I believe I may state, a probability of the Congress of 1857 being held in London. Should the event I allude to take place, it will become the duty of all concerned in statistical science to see that such an opportunity does not pass unimproved; so that 1858 may find us with a thoroughly organized system for the annual collection and publication of national facts, assimilated, if possible, to the system of France and Belgium. As a proof how much such comparing of notes is required, I may remind you that the census of Ireland and Scotland was taken in a manner different from that of England, while no attempt has ever been made to bring the entire British Empire, including India and the colonies, under a single statistical organization.

EXAMINATION PAPERS OF THE UNIVERSITY OF LONDON.

M.B. FIRST EXAMINATION.—1856.

PASS EXAMINATION.

Monday, August 4.—*Morning* 10 *to* 1.

ANATOMY AND PHYSIOLOGY.

Examiners, F. KIERNAN, Esq., and Professor SHARPEY.

1. Describe the Inferior Maxillary Bone, its mode of ossification, and the changes which it undergoes at different periods of life. Describe also the Articulation of the Lower Jaw and its movements, mentioning the muscles by which they are severally effected.

2. State the dissection required to show the course of the Deep Cervical Artery on the posterior aspect of the vertebræ; commencing with the integuments on the back of the neck, and describing the several parts exposed, in the order in which they appear in the dissection.

3. Describe the parts which would be brought into view in tracing by dissection the Peroneal or External Popliteal Nerve and its branches, from the upper part of the Popliteal region to their termination.

4. Describe the intrinsic muscles of the Larynx, mentioning their supposed actions and explaining the chief uses to which they are subservient. Describe also the distribution of the Laryngeal Nerves, and state what is believed to be their respective functions.

5. Give a description of the Pancreas; comprehending its form, dimensions, weight, connexions and internal structure.

Monday, August 4.—*Afternoon*, 3 *to* 6.

ANATOMY AND PHYSIOLOGY.

Examiners, F. KIERNAN, Esq., and Professor SHARPEY.

1. Give a description of the Atlas and Vertebra Dentata, and of their articulations with the Skull and with each other. State the movements of which the joints referred to are susceptible, and the muscles bywhich they are caused.

2. Describe, in the order of their appearance and as far as they would necessarily come into view, the parts that would be met with in fully exposing by dissection the Stylo-pharyngeus Muscle.

3. Describe, in the order in which they would appear on dissection, the several parts, except the bones, situated in the lower half of the fore-arm; the dissection to be limited below by the ends of the radius and ulna.

4. Describe the situation, connexions, form, and structure of the Uterus, Vagina, Fallopian Tubes, and Ovaries, with the vessels and nerves pertaining to these parts.

5. Give an account of the form, structure, connexion, and mode of growth of the Nails.

Tuesday, August 5.—*Morning*, 10 *to* 1.

CHEMISTRY.

Examiner, Professor Brande.

1. State the specific gravities and atomic weights, and give the symbols of the several oxides and sulphides of the following metals:—Potassium, Iron, Tin, Antimony, Arsenic.

2. What are the principal proximate components of the three varieties of Cinchona Bark specified in the Catalogue of the Materia Medica of the London Pharmacopœia? How are their alkaloids usually obtained, and by what properties are those alkaloids respectively recognized and distinguished?

3. Enumerate the several binary combinations of Carbon with—1. Oxygen: 2. Nitrogen: 3. Sulphur: 4. Chlorine. State the methods of obtaining these combinations, and their distinctive properties.

4. Describe the details of the qualitative and quantitative analysis of a calculus containing uric acid, ammonio-magnesian phosphate, and phosphate of lime.

Tuesday, August 5.—*Afternoon*, 3 *to* 6.

MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY.

Examiner, Dr. OWEN REES.

1. Enumerate the preparations of Mercury contained in the London Pharmacopœia; describe the processes we are recommended to adopt in order to obtain them, and the decompositions which take place during their formation.

2. What pharmaceutical preparations are more especially liable to become changed by exposure to light and to air? State the nature of the changes so effected.

3. Translate into English the following passage from the London Pharmacopœia:—

"Acidum Aquæ fluidunciis quatuor misce; hisque ubi refrixerint, in retortam immissis Ferrocyanidum Aquæ octario dimidio prius liquatum adjice. Aquæ fluiduncias octo in receptaculum frigefactum infunde; tum, retortâ aptatâ in hanc Aquam transeant Acidi fluidunciæ sex, balneo arenoso lento igne destillatæ. Denique Aquæ fluiduncias alias sex adde, vel quantum satis sit ut Argenti nitratis grana 12·59 in aquâ destillatâ liquata hujus Acidi granis 100 accurate saturentur."

Wednesday, August 6.—*Morning*, 10 *to* 12.

BOTANY.

Examiner, Rev. Professor HENSLOW.

1. Define the terms Dichotomus, Achenium, Bulbus, Lenticella, Hilum, Etiolatus.

2. Describe the specimens numbered 1, 2, etc., confining yourself strictly to such of the following particulars, as each may happen to exhibit. N.B. Reference to any others will receive no marks.

(*a*.) STEM. General Character.
(*b*.) LEAVES. Arrangement.
(*c*.) ——— Stipulation.
(*d*.) ——— Composition.
(*e*.) ——— Form.
(*f*.) ——— Margin and Incision.
(*g*.) ——— Venation.
(*h*.) INFLORESCENCE. General Character.
(*i*.) ——— Bracteal appendages.
(*j*.) FLOWER. Peculiarities of Calyx.
(*k*.) ——— ——— Corolla.
(*l*.) ——— ——— Stamens (noticing insertion).
(*m*.) ——— ——— Disk.
(*n*.) ——— Pistil (as to Ovary, Style, Stigma, Placentation).
(*o*.) A brief sketch of the chief characteristics of the Order to which the Plant belongs.

First Division.

Batten, Rayner Winterbotham	St. Bartholomew's Hospital.
Broadbent, William Henry	R. Manchester Sch. of Med.
Down, John Langdon Haydon	London Hospital.
Giles, Joseph	London Hospital.
Hodges, William	Guy's Hospital.
Jeaffreson, George Edwards	University College.
Jones, Philip Sydney	University College.
Liddon, William	King's College.
Siccama, Rinso Robert	King's College.
Smith, Thomas Parker	Chatham-st., Manchester.
Smith, William Josiah	St. Bartholomew's Hospital.
Watson, William Spencer	King's College.
Williams, Josephus Alexander	Queen's Coll., Birmingham.

Second Division.

Aldersey, William Hugh	Guy's Hospital.
Bazire, Pietre Victor	University College.
Braithwaite, James	Leeds School of Medicine.
Clapton, William	St. Thomas's Hospital.
Craddock, Samuel	King's College.
Foster, Michael, B.A.	University College.
Grabham, George Wallington	St. Thomas's Hospital.
Meeres, Edward Evan	King's College.
Procter, James	Guy's Hospital.
Sutton, Henry Gawen	King's College.
Tonge, Morris	Klng's College.
Walters, John	King's College.
Wilson, John	King's College.

THE ADULTERATION OF FOOD.

The following is the final recommendation of the Select Committee of the House of Commons appointed to inquire into the Adulteration of Food, Drinks, and Drugs :—

Without entering into voluminous details of the evidence taken, your committee would enumerate the leading articles which have been proved to be more or less commonly adulterated; these are, arrow-root, adulterated with potato and other starches; bread, with potatoes, plaster of Paris, alum, and sulphate of copper; bottled fruits and vegetables, with certain salts of copper; coffee, with chicory, roasted wheat, beans, and mangold wurzel; chicory, with roasted wheat, carrots, sawdust, and Venetian red; cocoa, with arrow-root, potato-flour, sugar, chicory, and some ferruginous red earths; cayenne, with ground rice, mustard-husk, etc., coloured with red lead, Venetian red, and turmeric; gin, with grains of Paradise, sulphuric acid, and cayenne; lard, with potato-flour, mutton suet, alum, carbonate of soda, and caustic lime; mustard, with wheat-flour and turmeric; marmalade, with apples or turnips; porter and stout (though sent out in a pure state from the brewery), with water, sugar, treacle, salt, alum, cocculus Indicus, grains of Paradise, nux vomica, and sulphuric acid; pickles and preserves, with salts of copper; snuffs, with various chromates, red lead, lime, and powdered glass; tobacco, with water, sugar, rhubarb, and treacle; vinegar, with water, sugar, and sulphuric acid; jalap, with powdered wood; opium, with poppy capsules, wheat-flour, powdered wood, and sand; scammony, with wheat-flour, chalk, resin, and sand; confectionery, with plaster of Paris and other similar ingredients, coloured with various pigments of a highly poisonous nature; and acid drops, purporting to be compounded of Jargonelle pear, Ribstone pippin, lemon, etc., with essential oils containing prussic acid or other dangerous ingredients.

The adulteration of drugs is extensively practised; and when it is borne in mind that the correctness of a Medical prescription rests on an assumed standard of strength and purity in the drugs or compounds employed, and how frequently life itself depends upon the efficacy of the medicines prescribed, it is difficult to exaggerate the evils arising from this prevalent fraud.

The adulteration of drinks deserves also special notice, because your Committee cannot but conclude that the intoxication so deplorably prevalent, is in many cases less due to the natural properties of the drinks themselves, than to the admixture of narcotics or other noxious substances intended to supply the properties lost by dilution.

Though adulterations prevail more or less in all districts, it may be assumed, as a rule, that the poorer the district the greater is the amount of adulteration. Nor have the poor the same power to protect themselves against such frauds as their richer neighbours; they are necessarily limited to such means of purchase as are afforded by the immediate locality in which they reside, and are, moreover, too often bound to one dealer by the facilities of credit which he affords them.

These adulterations may be classified under three heads, those of which the object is to lower the price of the article adulterated, by the admixture of substances of a cheaper kind; those which are intended to improve the appearance of the adulterated article, and thus in many cases to deceive the public as to its quality; and those which are practised for the purpose of simulating some property injured or destroyed in the process of the adulteration.

Adulterations in each of these classes are of two kinds, those in which are employed substances of an innocuous character, and those in which the mixtures are more or less injurious to health, either directly by the noxious properties of the ingredients, or indirectly by lowering the nutritive qualities of the articles adulterated.

In dealing with these various adulterations, it is necessary to distinguish between the pecuniary fraud practised on the public, and the injury to public health. If, as regards the adulteration of articles with substances of a cheaper and innocuous character, the public derive the full benefit of this cheapness in a lower price, it would be difficult, if not unwise, for the Legislature to interfere, unless it could do so by requiring that every such article be sold as a mixture, as distinguished from the article in its pure state. This the law already requires as to the article of coffee, and also as to the article of bread, which, unless made of wheat flour alone, must be distinctly marked with the letter M. But, whenever an article is so adulterated as to involve pecuniary fraud or injury to health, it appears to your Committee to be the duty of the Legislature to provide some efficient remedy.

It has been objected that the best course will be to leave the buyer to take care of himself. But there are many adulterations which it is impossible for the buyer to detect. Already the law takes note of frauds in weights and measures, of injuries likely to result to the public health from the sale of unwholesome animal food, and, indeed, of many adulterations, though in most cases only with a view to fiscal considerations, and not to those of a moral or sanitary character.

It is said, too, that there are many frauds which legislation cannot reach or punish. But, on the other hand, it would be difficult to tell the numberless frauds which legislation may prevent.

The great difficulty of legislating on this subject lies in putting an end to the liberty of fraud without affecting the freedom of commerce.

The Committee, then, enumerating the condition of the laws against adulteration in various foreign countries, proceed as follows :—

In England the law affords redress to consumers in cases of adulteration by action, if the injury be individual in its character; by indictment, if the injury be general; by summary charge before a magistrate; and by proceedings instituted by the Excise. The process of action or indictment is at once too costly and too cumbrous for general adoption. That by summary charge before a magistrate, as well as that originating with the Excise, applies only to a few special articles which are named in particular acts, or which are subject to the supervision, for fiscal purposes, of the Board of Inland Revenue; but your Committee are of opinion that it would be most desirable that, in all cases of the sale of an adulterated or fictitious article, a cheap and easy remedy, by summary charge before a magistrate, should be afforded to the person upon whom the fraud had been practised, and they would strongly recommend the propriety of such a change in the present law on this subject as would effect this object.

Your Committee desire specially to call attention to the provisions of the Bread Act, 6 and 7 William IV., c. 37. Section 2 provides that bread may be made of wheat flour, barley, rye, oats, buckwheat, Indian corn, peas, beans, rice, or potatoes, with any common salt, pure water, eggs, milk, barm, leaven, potato or other yeast, and with no other ingredients; subject to certain regulations. Any mixture besides those allowed in section 2, involves a penalty of £10, or not less than £5, or, in default, an imprisonment not exceeding six months, with or without hard labour; and, if the magistrate think fit, publicity of the offence by advertisement. Any one mixing with the corn, meal, or flour, any ingredient not the genuine produce of the corn or grain; or any one selling, or offering for sale, separately or mixed, any meal or flour of one sort of grain as the meal or flour of any other sort, or any ingredient mixed with the meal or flour so sold, is liable to a penalty of £20, and not less than £5. All bread made with mixed meal or flour must be marked with a Roman M. The penalty for neglecting this provision being a fine not exceeding 10*s*. for every pound weight of bread not so marked. Magistrates, or peace officers by their warrants, may search premises, and seize any adulterated flour or bread, and search for any forbidden ingredient. The penalty, if ingredients for adulteration are found, is £10, or not less than 40*s*., for the first offence, £5 for the second, and £10 for every subsequent offence, or, in default, six months' imprisonment, with publicity as to the names of the offenders. The Act also provides for an appeal to Quarter Sessions, and declares that no person shall be convicted unless complaint is made within forty-eight hours after the offence, or within such reasonable time as to the justices may seem fit.

Your committee have given the provisions of the Bread Act in some detail, because it seems to them to comprise much that may be useful in framing a measure applicable to adulterations generally.

It is impossible to frame any enactment on this subject which shall rely on strict definitions. The object of the law is to strike at fraud, and wherever a fraudulent intention can be proved, there to inflict a penalty. What constitutes fraud must be left to the interpretation of the administrators of the law. Thus, mixtures of an innocuous character, made known

by the seller, or used for the preservation of the article, cannot be forbidden without danger to the needful freedom of commerce, and ought not to be interpreted as coming within the provisions of a penal law. Nor should those provisions apply wherever the seller can afford satisfactory proof that he has himself been deceived, and was not conscious of the adulterations practised; unless he have evinced a culpable ignorance of the trade which he professes to follow.

Subject to these qualifications, the law should be clear and positive in forbidding adulteration, and in punishing those who practise it.

Hitherto the progress of legislation has not kept pace with the ingenuity of fraud, which has not scrupled to avail itself of every improvement in chemistry or the arts which could subserve its purpose.

Although, however, the means of adulteration have greatly increased, so also, fortunately, have the facilities for detection, especially by the improved use of the microscope, which has been employed by Dr. Hassall and others with signal success.

At first, no doubt, some difficulty would be experienced in finding persons qualified to conduct the required chemical and microscopical examinations; but the want will soon give rise to the needful supply. This want has been already felt by the Board of Inland Revenue, which has been compelled, for the purposes of the analysis requisite in cases of adulterated articles of excise, to educate persons for this special duty. In addition to about 4000 officers scattered over the country, whose experience enables them to detect many adulterations, and to discover cases of strong suspicion, the Board employs about sixty to seventy analytical chemists, whose numbers are recruited by students educated for this purpose at University College, to the number of fourteen in every year. Mr. Phillips, the chief officer of the chemical department of the Board of Inland Revenue, states that the practice is for the officers, if they suspect a trader of adulterations, or on information given to them, to go and procure samples. Many are competent to examine samples on the spot. If they have any doubt on their own judgment, they send them to the laboratory to be further examined. And he adds, as showing the result of the system adopted by the Board, that adulteration has been totally stopped in some articles, and much diminished in others, from the very fact that traders know they are liable to inspection by the excise officers.

It has been suggested that the prevention of adulterations in food might be accomplished by an extension of the system of the Board of Inland Revenue; but your Committee are of opinion that no machinery for this purpose will work satisfactorily, unless the agents employed derive their authority from corporate or other local governing bodies.

It will be desirable, therefore, to empower municipal or other local or district authorities to appoint an officer, or officers, who, on complaint made, or in cases of reasonable suspicion, shall procure portions of any article supposed to be adulterated, with a view to their examination or analysis by some duly qualified person appointed for that purpose. On the report of such persons, if it confirm the suspicion of adulteration, a summons shall be issued, and the case be investigated before the justices, who shall have power to inflict summary punishment, by fine or imprisonment, in every case were pecuniary fraud or danger to health shall have been proved. The justices should also be empowered to publish the names of offenders. The advantages of publicity have been urged by many witnesses, and especially by Dr. Hassall and Mr. Wakley, who attribute a recent great diminution in the amount of adulteration to the publication of names and other particulars in the reports of the "*Lancet* Commission." It is essential that a right of appeal should lie to the Court of Quarter Sessions.

With regard to coloured confectionery, your committee recommend that authority should be given to local boards of health, or other governing bodies, to forbid the use, for colouring, of all mineral matter, and all poisonous vegetable matter.

But although your committee desire to leave the execution of the law against adulteration in the hands of the local authorities, they are of opinion, that very valuable assistance would be afforded to such bodies in ascertaining the fact of adulteration, if one or more scientific analysers were to be appointed under the authority of the General Board of Health, to whom the local authorities might, whenever they thought fit, refer any articles seized under suspicion of adulteration, for analysis, and who would thus enable the persons charged with the administration of the law, to obtain at once, and without cost, a fully competent opinion in all difficult cases.

These analysers should also undertake to examine any articles sent to them by private individuals, on payment of the expenses of such examination.

Your committee would also suggest that the General Board of Health should from time to time issue such information as to the nature of the adulterations of articles of food, etc., injurious to health, as may be obtained in the progress of scientific research on this subject, and as would serve to guide the local authorities in their endeavours to detect these frauds.

With reference to drugs, your committee are of opinion that no inspection at the outports would guarantee to the consumer the purity of commodities passing through the hands of intermediate parties; and the exclusion of impure drugs would operate injuriously, by interfering with the supply obtained by scientific processes calculated to extract valuable matter even from products seemingly almost worthless.

The committee then recommended the licensing of the sale of drugs by some accredited body, as the College of Physicians or the Pharmaceutical Society.

Though not coming strictly within the scope of the inquiry intrusted to them, your committee cannot forbear calling attention to the evidence concerning patent medicines, the sale of poisons, and the state of the pharmacopœias of the three kingdoms.

With regard to patent medicines, there can be no doubt that the public health is endangered by the use of several of these compounds; and your committee are of opinion that the stamp duty, by giving them a seeming Government sanction, has an injurious influence in encouraging their sale and consumption, and should be abandoned whenever this can be done with a due regard to the wants of the public revenue.

The unrestricted sale of poisons is a matter of pressing importance, and deserves the early attention of the Legislature. At the present moment, the most violent poisons may be universally sold, without any restriction except such as is afforded by the sense of moral responsibility on the part of the dealer. It is needless to point out the serious consequences which frequently ensue from this unrestrained freedom. To take a familiar instance, it is stated in evidence, that the essential oil of bitter almonds, and what is called "almond flavour," of various strengths, and containing highly dangerous elements, are openly and commonly sold for culinary purposes, and, in the hands of servants wholly ignorant of their properties, used in quantities often dangerous and sometimes fatal. It is well worthy of consideration whether the sale of poisons should not be forbidden, unless under the authority of a medical prescription, or under such conditions as to witnesses, and formal entries of the names and addresses of purchasers, as may secure the needful amount of caution.

The evil arising from the existence of three distinct and, in some important instances, widely differing pharmacopœias for the three kingdoms, is one too evident to need enforcement. The result is, that many of the prescriptions of one country are not only inefficacious, but often absolutely dangerous, if made up in either of the others. One of the witnesses states that an Edinburgh prescription containing a solution of morphia, made up in London, would involve the patient's taking twice the quantity intended. On the other hand, a patient taking prussic acid under an Edinburgh prescription, made up in London, would be taking only half the quantity intended; the Edinburgh prussic acid being twice the strength of the prussic acid of the London pharmacopœia. This is an evil which can be remedied only by the combined efforts of the Medical authorities of England, Ireland, and Scotland, to whom the subject should, without delay, be referred.

MR. SNAPE'S CASE.

In the Central Criminal Court on Monday, Mr. Edwin James, Q.C., who was specially retained with Mr. Serjeant Ballantine, to defend Mr. C. Snape, upon a charge of having caused the death of a pauper lunatic, by keeping him for an improper

period in a shower-bath, applied to the court to discharge the recognizances of the defendant. He said that the prosecution was instituted by the Commissioners of Lunacy, and Mr. Snape was bound over by the magistrate at Bow-street to appear to answer any charge that might be preferred against him, and the matter was postponed to the present session. On the 8th of August, however, Messrs. Few and Co., the solicitors for the defendant, received a communication from Vanderenn and Co., the solicitors to the Commissioners, informing them that, in consequence of the illness of Sir F. Thesiger, who was retained by them to conduct the prosecution, it was not their intention to prefer any bill against the defendant at the present session. Under these circumstances, he was instructed to say that Mr. Snape had already suffered most severely in consequence of the charge that had been made against him. He had been suspended from his situation, he was receiving no salary, and the delay would be attended with the most ruinous consequences. He was most anxious to meet the charge, and had incurred great expense in procuring the attendance of witnesses, and was now prepared to take his trial; and when all these steps had been taken, a further delay was sought for, upon no other ground than the convenience of the learned counsel who was to conduct the prosecution. He trusted that, as no bill was intended to be preferred, the Court would order the recognizances of the defendant to be discharged.

Mr. Bodkin, who appeared for the prosecution, said the facts had been correctly stated by his learned friend so far as they went, but he omitted to inform the Court that the trial was postponed from the last session upon the application of the defendant. It was considered by the prosecutors that the interests of justice might suffer if the trial were to take place at the present session, and therefore it was not intended to prefer a bill before the grand jury.

The Common Serjeant said he regretted that the defendant should have to suffer the inconvenience of further delay, but he did not see how the discharging of his recognizances would relieve him. If the grand jury found the bill at the next sessions, a warrant would be issued, and he would be brought to the court upon that warrant, instead of appearing upon his own recognizances.

Mr. James said that the grand jury might possibly throw out the bill.

The Common Serjeant said if they did that, there would, of course, be no trial, and there would be an end of the matter. He then said he considered the defendant was entitled to favourable consideration, from the fact of his readiness to take his trial; but he did not see what advantage it would be to him to discharge his recognizances at the present time.

The recognizances of the witnesses for the prosecution, and those of the defendant and his sureties, were then ordered to be enlarged to the next session.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the meeting of the Court of Examiners on the 8th instant:—

Bartlett, Walter Frederick Cope, Clayton.
Bennett, James, Dublin.
Doig, Charles David, Seafield House, Leith.
Eeeles, Edmund, Longridge, near Preston.
Ferdinands, James Bernard, Ceylon.
Frank, Philip, Army.
Gilroy, John, Cavan.
Jones, Benjamin, Anglesea.
Phelps, William Henry, Bristol.
Wanklyn, James Alfred, Manchester.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, August 14, 1856:—

Games, John Hughes, Liverpool.
Brown, Benjamin Stocks, West Bromwich.
Seannell, Daniel, Chapel-street, Belgrave-square.
Pratt, John Stevens, Wolverhampton.
La Croix, Frederic, Winchester.
Taylor, Alfred Augustus.
Debenham, Robert, Norton, Suffolk.
Lovell, William Frederic, Glastonbury.
Cousins, John Ward, Portsmouth.
Turtle, Frederick, Manchester.

DEATHS.

Buckland.—August 7, at Clapham, William Buckland, D.D. This gentleman was better known in the scientific than in the religious world, and his determined pursuit of geological researches, especially in the details of that science, made his opinions of the highest authority. In 1845, Sir Robert Peel appointed him to the Deanery of Westminster, vacant by the elevation of Dr. Samuel Wilberforce to the Bishopric of Oxford. Within a short time after his appointment, Dr. Buckland became subjected to "the last infirmity of noble minds,"—his intellect gave way, and from that time until the hour of his death, his life was one of seclusion from the world. Dr. Buckland was a Fellow of Corpus Christi College, Oxford, and in 1813 was appointed Reader in Mineralogy to the University. In 1818, he received the appointment of Reader in Geology to the same University. By a large number of the alumni of Oxford, Dr. Buckland's memory will be long cherished as a zealous and indefatigable tutor; and they will best appreciate the "gossip" of the eminent geologist, such as they enjoyed in the Headington Quarries, and in other rich localities of the Oxford district.

Giles.—August 16, at Cowden Cross, near Edenbridge, Kent, H. J. Giles, Esq., Surgeon, formerly of Andover, in his 72nd year.

Hann.—August 17, in his 58th year, James Hann, Esq., many years Mathematical Master of King's College School, and author of several highly reputed scientific works.

Hoffman.—August 12, George Henry Hoffman, Esq., of Margate, in his 81st year. Mr. Hoffman was the senior partner of the firm "Hoffman, Son, and Beverley," of Cecil-street, Margate; and as such was very highly and deservedly respected. He died somewhat suddenly of paralysis; and the bereavement is deeply felt by his son, the surviving representative of the firm, who within six months has had to mourn the loss of a much-esteemed junior coadjutor (Mr. Beverley), and now of his much-honoured parent.

Pepys.—August 17, William Hasledine Pepys, Esq., F.R.S., of Earl's-terrace, Kensington, aged 81.

Sankey.—August 16, at Canterbury, Edward Sankey, Esq., Surgeon, aged 57, M.R.C.S.E. 1820; L.S.A. 1820.

We are requested to announce the following:—Married, on the 13th inst., at Guisbro, Yorkshire, by the Rev. Henry Clarke, Incumbent and cousin to the bride, E. Selwyn Morris, Esq., Surgeon, etc., to Elizabeth, only daughter of the late Michael Mackereth, Esq., of the same place.

We are requested to insert the following Birth:—At Brentwood, on the 16th inst., the wife of Benj. Baker, Esq., Surgeon, of a daughter.

APPOINTMENT.

Professor Sands Cox has been elected a corresponding member of the Société de Chirurgie de Paris, and a report of his Memoir on Amputation at the Hip-Joint by Baron Larrey has been ordered to be published in the transactions of that body.

We are glad to hear that it is the intention of Mr. G. E. Blenkins to deliver a course of lectures during the ensuing winter session on the subject of Military Surgery at the Grosvenor-place School of Anatomy and Medicine. Few men went out better prepared to gain experience from the War in the Crimea than Mr. Blenkins; and we feel sure that his course of lectures on this subject will be worthy the attention both of the Student and the Practitioner.

The Court of Examiners of the Apothecaries' Society.—By a recent resolution of this Court, the Examiners are no longer prohibited from delivering lectures on the various branches of Medical Science. The prohibition originated with the Court itself, which has thus repealed its former bye-law.

Queen's College, Birmingham.—Miss Burdett Coutts has presented the munificent donation of £600 towards the new buildings for the Museums of Human and Comparative Anatomy and Natural History.

The Dreadnought Hospital Ship.—There is a vacancy for the appointment of a Physician to this Charity, owing to the retirement of Dr. John Hue. There are four candidates in the field—Dr. Bealey, Dr. Stone, Dr. S. Ward, and Dr. Hooper.

University of London.—Matriculation, 1856.—The following is a list of the successful candidates at the recent examination for honours:—

Mathematics and Natural Philosophy.—William Jack, St. Peter's College, Cambridge, and Joseph Maurice Solomon, University College — equal; James M'Dowell, Pembroke College, Cambridge; John Marsden Raby, Wesley College, Sheffield; Herbert Hardy Cozens-Hardy, Amersham Grammar School; Thomas Douse, private tuition; Henry Percy Ibotson, Mill Hill Grammar School; Horatio Gabriel Varicas, University College; John Wesley Frazer Cox, Wesleyan College Institution, Taunton; James Edward Vetch, New College; Henry Nelson Capel, King's College; James Lambert White, City of London School; Edward Goddard, University College; George Edward Foster, private tuition; Frederick Victor Dickins, private tuition.

Chemistry.—Jos. Frank Payne (prize of books), Grammar School, Leatherhead; George Frederick Atchley, King's College, and Forbes Watson, private tuition—equal; John William Smith, private tuition; Tyler Oughton, St. Thomas's Hospital, and William Summerhayes, St. Thomas's Hospital —equal; Charles Hunter, St. George's Hospital; John Francis, Wesleyan College Institution, Taunton, Francis Douglas Harris, City of London School, and Thomas Shill, of St. Thomas's Hospital—equal; Frederick William Gush, Wesleyan College Institution, Taunton, and Edward Woakes, St. Thomas's Hospital—equal; Frederick Victor Dickins, private tuition; Albert Warren Leachman, private tuition.

Botany.—George Frederick Atchley, King's College; Edward Woakes, St. Thomas's Hospital.

Zoology.—John Cavafy (prize of books), University College; Joseph Frank Payne, Grammar School, Leatherhead; Charles Goward, private tuition.

Classics.—John Marsden Raby (exhibition), Wesley College, Sheffield; Herbert Hardy Cozens-Hardy, Amersham Grammar School; Hermann Nathan Adler, University College; Julian Goldsmid, University College; William Summerhayes, St. Thomas's Hospital; John Shoard, Bristol Grammar School; John George Wood, King's College; John Ogwen Jones, Calvinistic College, Bala, and John Robert Vaizey, University College—equal; Philip Henry Pyesmith, Mill Hill Grammar School.

Queen Charlotte's Lying-in Hospital.—A General Meeting of the Governors of this Charity was held on Thursday week, at 13, Middlesex-place, New-road, Marylebone, under the Presidency of Mr. Bond Cabbell, M.P., to revise some laws and other matters relating to the government of this Charity. The revised laws referred chiefly to the qualifications and privileges of the governors and subscribers. It seems that, with the limited means at their disposal, the governors had been able to effect a large amount of good, about 400 women being, on the average, yearly delivered in the Hospital and at their homes. The new and commodious building, which was commenced last year in the New-road, is now nearly in a state of completion, and is expected to be ready for occupation at the end of next month, or the beginning of October.

A Natural History Society has just been established in Bombay, the chief characteristic of which is, that the monthly meetings are to be accompanied by excursions, the members bringing with them for discussion and examination the fruits of their rambles.

The Anniversary Meeting of the Ray Society was held during the meeting of the British Association at Cheltenham. It appears from the Report of the Council that they have now published their two great serial works, Agassiz's and Strickland's Zoological and Geological Bibliography, and Alder and Hancock's beautiful work on the Naked Marine Mollusca. The Report announced that the next work to be published is one by Prof. Allman, of Edinburgh, on the Fresh-water Polyps of Great Britain. Several other works were also announced on various departments of British Natural History. Amongst them are Prof. Williamson's "British Foraminifera," Mr. Bowerbank's "British Sponges," and Mr. Blackwall's "British Spiders." The present is a favourable opportunity for joining the Society, as the Council are now issuing a new series of books, and the value and interest of their works in a scientific point of view can hardly be overrated.

Charge of Malpraxis.—Great excitement has been caused in France by the condemnation of a Medical man to imprisonment, under the following circumstances:—M. Renaut, a provincial Practitioner of long standing, and in extensive practice at Dormans (Marne), had under his care a woman, aged 48, suffering from chronic laryngitis, who had, two or three years before, been treated for syphilis at the Hôtel-Dieu, Chateau-Thierry. Towards the end of April, the symptoms increased in severity, and continued to resist treatment; and M. Renaut, after satisfying himself, by exploration, that œdema of the glottis had supervened, proposed to the patient, on May 6, that he should cauterize the swelling by means of the acid nitrate of mercury. After considerable persuasion she consented; and, being seated in a chair, with her head supported by an assistant, the nitrate, diluted with four times its weight of water, was applied. Scarcely had this been done, when the patient was seized with spasms, for which M. Renaut prescribed gargling with cold water, and, after ten minutes, he left the house. After his departure, however, the patient became worse, dyspnœa and increasing paroxysms of suffocation set in; so that, two hours after the cauterization, the patient died. An accusation of having caused the woman's death through the operation was brought against M. Renaut at the Tribunal of Chateau-Thierry, and two Doctors of Medicine were sworn as experts. The autopsy proved that the diagnosis of the disease had been rigidly correct. The experts, however, express an opinion that the symptoms due to the œdema were not urgent enough to call for cauterization; and that, even if they had been, the nitrate of mercury was not an eligible substance. They suggest, that the supervening asphyxia was due to some drops of this penetrating into the larynx. They think, moreover, that Medical aid properly rendered, and especially by the performance of tracheotomy, might have saved life. The tribunal condemned M. Renaut to three months' imprisonment and a heavy fine. He has appealed to the Cour Imperiale of Amiens. In the meantime, consulted by the defendant, and appealed to by many correspondents who regard this decision as very detrimental to the interests of the Medical Profession, the Editorial Committee of the *Union Médicale*, comprising several men of high Professional position, has taken the case up. It maintains, 1. That M. Renaut's diagnosis was exact; 2. That the employment of cauterization is a recognized mode of treating œdema glottidis; while his choice of the caustic was based upon the syphilitic origin of the disease—a choice since approved of by MM. Laudouzy, Velpeaux, Ricord, and Nelaton. The apparent meliorations in this disease are too often deceptive to justify delay. 3. As to the fatal termination, the experts have adopted the *post hoc ergo propter hoc* line of reasoning. It is a disease in which all experience shows that sudden and unexpected death is not uncommon; while Practitioners who have employed caustics thousands of times, such as Bretonneaux, Trousseau, etc., all agree that the apparently alarming consequences of the entrance of caustic fluids into the air-passages are essentially transitory, so that it is doubtful whether an authentic case of death being so induced exists. 4. Although there can be no doubt that M. Renaut was wrong in so soon leaving his patient, yet the case did not then apparently present more symptoms of irritation of the air-passages than are usually observed temporarily after cauterization of the larynx. M. Tardieu, an eminent authority in Legal Medicine, much consulted by the Government, while adhering to the above conclusions, adds, that the exclusively Medical questions at issue here can in nowise be transformed into questions of Medical responsibility. In this affair, it is only a discussion of diagnosis and general therapeutics, in which the want of success in the means employed, cannot, under any circumstances, be assimilated with the "grave fault" specified by the law. M. Dupin, senior, is still more explicit in laying down the law in this class of cases, when engaged in another case: "In questions of this kind we have not to inquire whether the

treatment ordered has been suitable or not, if its effects have been hurtful or salutary, whether other treatment would have been more serviceable, whether this or that operation was indispensable, whether imprudence or not was manifested in undertaking it, skill or clumsiness in executing it, or whether with this or that instrument or procedure a better result might not have been obtained. These are all scientific questions for debate among Doctors, and can never constitute cases of civil responsibility, or be brought under the notice of the tribunals."

Case of Accidental Poisoning by Strychnia.—Another example of the lamentable mistakes which occasionally occur in the composition of medicine, took place on the morning of Sunday, July 27, in the workhouse of the Bailieborough Union, in the county of Cavan, Ireland. The victim on this occasion was a little boy, aged 8 years, an inmate of the institution, to whom a powder, supposed to consist of calomel and jalap, was administered by his mother at about ten minutes before seven o'clock on the morning of the above-mentioned day. From the mother's testimony before the coroner it appeared, that, in a very short time after swallowing the powder, the child worked in fits, and shouted out, "Oh, they are coming for me!" He had no appearance of locked jaw; he swallowed everything he got. The mother immediately ran for Dr. Clarke, who saw him without delay. Dr. Clarke states that he found the deceased sensible, and speaking rationally. He was labouring under very violent tetanic convulsions. He had no vomiting. The extremities, upper and lower, were perfectly rigid and extended. The patient was trembling violently, and was one shaking mass in constant motion. The pupils of the eyes were dilated to their fullest extent. The eyeballs appeared to be protruding out of their sockets. Dr. Clarke immediately went to the surgery for an emetic, and on his return the boy was dead. On post-mortem examination, strychnia was discovered in the contents of the stomach. Part of the stomach appeared as if it had been sprinkled with red ink, the rest was healthy. The liver and other abdominal organs were healthy. Strychnia was likewise discovered in a second powder, which had been given to the mother along with that administered to the child. On the inquest it appeared that Dr. Wright, who was acting during the temporary absence of Dr. Taylor, the medical attendant of the workhouse, had, in compounding the medicine for the child, used a portion of the contents of a bottle on which were two labels—one before and one behind—marked strychnine. Dr. Wright stated that he was guided by the back label, the inscription on which was somewhat imperfect, and was read by him as "submurias hydrargyri." The jury, after a lengthened consultation, agreed to the following verdict: "We find that the deceased came by his death on the morning of Sunday, the 27th of July, in consequence of strychnine prescribed [dispensed] by Dr. Wright in mistake for calomel, and administered by deceased's mother; and we are perfectly satisfied that he had no evil intention."—Dr. Wright, who was under arrest since the day of the death of the child, was subsequently admitted to bail, to stand his trial at the next assizes.

The Nightingale Fund.—The statement, that a sum of 1000 medjedie had been contributed by the Sultan to the Nightingale Fund is incorrect. It was erroneously paid into the Bank to the account of Miss Nightingale, and the Committee naturally considered it was intended as they described it. It is now, however, understood, that it is a gift of the Sultan to the nurses who had served in the Crimea, and will be distributed among them; for which purpose it will be at once transferred from the Bank to the authorities at the War Office, with whom, of course, the distribution rests.

Cholera in Lisbon.—August 9.—The cholera is still present with slightly abated rigour. The official returns show that for the last ten days, or since the sailing of the last packet, the cases, according to official returns, have been 1770, and the deaths 530. This shows a decrease in the number of deaths.

The Panopticon, in Leicester-square, is for sale.

Poisoning.—As three Marines were a few days since walking in the neighbourhood of Kermon, a village near Brest, they saw a plant which they considered to be the same as one which grows in the Antilles, where they had been stationed, and the root of which is considered a very nutritious food. In that persuasion they pulled up a quantity and ate . In about half-an-hour they were all seized with symptoms of having been poisoned, and one of them died soon after in strong convulsions. The other two were able to reach their quarters and obtain medical assistance, and have since recovered. The plant they had eaten of was the Œnanthe Sofranée, one of the most energetic of the narcotico-acrid umbelliferous plants.

Mortality in Scotland.—The quarterly return of the births, deaths, and marriages in Scotland for the quarter ending June 30, shows that during the second, or spring quarter of 1856 there were registered in Scotland 26,820 births, 14,640 deaths, and 5183 marriages; being, for the estimated population, at the annual rate of one birth in every 28, one death in every 51, and one marriage in every 146 persons. 26,820 births were registered during the second quarter of 1856, a number exceeding by 1382 the births registered during the corresponding quarter of 1855, and therefore considerably more than could be accounted for by mere increase of population. Allowing for increase of population, the births were in the annual proportion of 353 to every 10,000, or one birth to every 28 persons living. This proportion varied greatly in the different counties; being so low as 254 and 257 births to every 10,000 persons in the almost stationary populations of the north-western and northern counties; while in the rapidly-increasing and manufacturing population of the south-western counties, the proportion was so high as 482 births in every 10,000. The difference between the number of births in the town and country districts is not less striking. In 138 town districts, embracing all the populous towns, and containing nearly an exact half of the population of Scotland at the census of 1851, there were registered during the quarter 15,310 births, being in the high proportion of 424 births annually in every 10,000, or one birth in every 23 persons; whereas in the 870 rural districts, with an equal population, the births only amounted to 11,510, being in the low proportion of 318 births to every 10,000, or one birth in every 31 persons. Of the 26,820 births, 13,812 were males, and 13,009 females. 8959 of these births were registered during April; 1236 during May; and 8625 during June.—— 14,640 deaths were registered during the quarter ending 30th June, 1856, being 672 fewer deaths than were registered during the corresponding quarter of last year, and 1383 fewer than during the first quarter of the current year. Allowing for increase of population, this would give the annual proportion of 193 deaths in every 10,000, or one death in every 51 persons; a very low rate of mortality for the whole country. This proportion varied greatly in the different counties, but in almost every case corresponded with the proportion of births; being lowest in those counties where the proportion of births was lowest, and highest in those in which the number of births exceeded. The difference between the proportion of deaths in the town and country districts, during the quarter, is worthy of note. In the 138 town districts, embracing the half of the population of Scotland, the deaths numbered 9110, being in the annual proportion of 252 deaths in every 10,000, or one death in every 39 persons. In the 870 rural districts, on the other hand, with an equal population, the deaths only amounted to 5530, being in the low proportion of 153 deaths in every 10,000, or one death in every 65 persons. Of the 14,640 deaths, 7429 were males, and 7211 females; of which 5193 were registered during April; 5005 during May, and 4442 during June. The health of the population has been very satisfactory during the second quarter, and the mortality has not only been below the average of this quarter, but lower than that of England during the same quarter for a period of at least eleven years.

Mortality Notabilia.—The inhabitants of London are not in an average state of health. 1250 deaths were registered in the week that ended on Saturday, August 16th, whereas the corrected average of the corresponding eight weeks of previous years, when cholera was not epidemic, is 1127. In the second week of August, 1849 and 1854, cholera was epidemic, and the deaths amounted to 2230 and 1833. Summer cholera now prevails to a slight extent, and was fatal in 22 cases, 6 less than in the previous week; diarrhœa was fatal in 253 cases. 620 of the persons who died under 60 years of age suffered either from zymotic diseases, or diseases of the respiratory organs and consumption.

Births.—The births of 793 boys and 782 girls, 1575 children, were registered: average 1427.

Meteorology.—The meteorology of the week underwent great changes. The barometer stood at 29·763 in. on an

average. The mean temperature of the air was 66·9° during the week; it was 69·3° on Sunday, 71·1° on Monday, and fell gradually to 62·5° on Saturday. The highest temperature of the air in the shade rose to 87·0° on Monday. The lowest temperature of the air 48·5° was observed on Saturday night. The thermometer in the sun rose every day to 100° and upwards, attaining 105·5° on Wednesday. The temperature of the Thames was 70·4°. The dryness of the air was indicated by the 9·1° of difference between the temperature of the wet and dry bulb thermometers.

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	4	6	2	37	5
North	490,396	2	8	4	6	61	10
Central ..	393,256	1	11	5	1	38	8
East.....	485,522	..	5	9	4	57	8
South	616,635	..	15	7	6	60	11
Total..	2,362,236	3	43	31	19	253	42

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, August* 16, 1856.

Causes of Death.	In the Week ending Saturday, August 16, 1856. Deaths of Persons. At all Ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 66·9						° 61·4
All Causes	1250	760	150	145	156	39	1226·2
Specified Causes	1244	756	150	144	155	39	1220·1
Diseases:—							
1. Zymotic Class	454	393	16	14	26	5	442·4
2. Dropsy, Cancer, and others of uncertain seat	51	7	8	17	17	2	42·2
3. Tubercular Class	195	76	75	36	8	..	182·7
4. Of Brain, Nerves, etc. ..	125	63	9	18	31	4	110·6
5. Of Heart, etc.	39	3	8	15	12	1	28·5
6. Of Respiratory Organs ..	88	48	8	8	19	5	78·3
7. Of Digestive Organs ..	62	25	8	19	10	..	69·1
8. Of Kidneys, etc.	14	..	2	7	4	1	11·1
9. Of Uterus; viz. — Puerperal Disease, etc. ..	4	..	2	2	..	..	7·5
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	5	3	1	1	..	..	8·1
11. Of Skin, etc.	2	2	..	..	..	..	2·0
12. Malformations	4	4	..	..	..	..	2·4
13. Debility from Premature Birth, etc.	44	44	..	..	..	..	26·7
14. Atrophy	48	41	..	..	7	..	38·0
15. Age	39	..	..	..	18	21	35·6
16. Sudden	10	6	2	1	1	..	4·3
17. Violence, Privation, etc...	60	41	11	6	2	..	30·7
Causes not specified.. ..	6	4	..	1	1	..	6·1

BOOKS RECEIVED.

Chemistry, Theoretical, Practical, and Analytical, as Applied and Relating to the Arts and Manufactures. By Dr. Sheridan Muspratt. Part XXV.

Fifth Annual Report of the Wilts County Asylum, Devizes. For the Year 1855.

Practical Observations on the Use and Abuse of Tobacco. By John Lizars. Edinburgh. 1856.

The Spas of Lisdoonvarna, with a Report and Analysis thereon. By James Apjohn, M.D. Dublin. 1856.

TO CORRESPONDENTS.

A Workhouse Medical Officer.—The Medical officer of a workhouse is not entitled to any fee for the quarterly Reports of the condition of the lunatics in the establishment. The fee is fixed by Act of Parliament, and is to be paid only for the Reports on the condition of Lunatics *not* in a workhouse.

Mr. W. A. N. Cattlin's second letter arrived after our Journal was published.

Dr. John Ogle's Cases of Epilepsy, and *Dr. Rigby's* paper on Cicatrization of the Os Uteri are in type, and will appear next week.

Sanitas.—In 1854, the deaths from cholera were as follow in each of the eight weeks of August and September :—4, 10, 18, 16, 7, 16, 29, 47. The outbreak reached its maximum on the first week of November when the deaths were 102.

Mr. Newsom.—The most extensive libraries in London are those of the London Institution and the London Library, each having 60,000 volumes. The number of volumes returned as composing the library of the Royal College of Surgeons in 1851, was "nearly 30,000."

Aquarium.—There is a very large sort in the Botanic Gardens at Chelsea but the finest *limnea spiralis* and *planorbis* we have ever seen are those of the Oxford waters.

Chirurgus.—The Inspectors of Anatomy for England are :—George Cuishan, M.D. and John Bacot, Esq.; and for Scotland, Andrew Wood, M.D.

F. R. C. S.—The Medical Staff of Greenwich Hospital consists of a Medical Inspector of Hospitals and Surgeon, a Deputy Medical Inspector, a First Assisting Surgeon, two Assistant Surgeons, a Dispenser, and an Assistant Dispenser.

A. K.—Our correspondent is mistaken in supposing that the cases in question require any special or peculiar study. Those who profess to devote their exclusive attention to such real or supposed maladies are for the most part quacks, whose only object is to make money. The affection is generally constitutional and quite curable under ordinary treatment.

Mr. Wilde is thanked for his communication, and is correct in supposing that we had already received information upon the subject to which it relates.

Cupio Scire, Manchester, should have couched his remarks in a more civil tone, in which case we should have afforded him the information he seeks.

Mr. Lyons.—There are several memorials to Medical men in Westminster Abbey, either in the shape of busts or tablets. Among them are those to Dr. Wetenhall, son of Bishop Wetenhall, died 1733; John Friend, M.D., died 1728; Dr. Woodward, died 1728; Dr. Richard Mead, died 1754; Dr. John Plenderleath, Physician in the Army under the Duke of Wellington, died at Coimbra 1811; and to Dr. Buchan, Author of "Domestic Medicine."

M.D.—In order to exemption from serving on Juries, you must be "*in actual practice.*"

Hygeia.—The largest collection of Medical proverbs is to be found in the "Regimen of Health of the School of Salernum," compiled by John of Milan in the 11th century. Some of them are characterised by sound sense.

Mr. Horsley will perceive that the subject of his communication has not escaped our notice.

COMMUNICATIONS have been received from—

Dr. C. A. Gordon; Dr. W. Wilson, Vienna; Mr. W. A. N. Cattlin; Dr. Rigby; The Royal Institution; Dr. Odling; Mr. E. Selwyn Morris; A Workhouse Medical Officer; Mr. W. B. Kesteven; Mr. John Lizars; Dr. Moore; Dr. M'Loughlin; Dr. Walker, Stourbridge; The University of London; Mr. Sands Cox; J. D. C.; Mr. J. W. Wilde; Mr. A. G. Field; Cupio Scire; Mr. F. H. Johnson; Dr. Thomson; Mr. Harry W. Lobb; Mr. Baker; Mr. Newsom; F.R.C.S.; Chirurgus; Aquarium; Sanitas; Dr. Lankester; Mr. Horsley; A. K.; Mr. H. E. Shaw; Dr. S. T. Speer, Cheltenham.

APPOINTMENTS FOR THE WEEK.

August 23. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

25. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

26. *Tuesday.*

Operations at Guy's, 1 p.m.

27. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

28. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

29. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

LECTURES

ON THE

VARIETIES OF CONTINUED FEVER AND THEIR DISCRIMINATION.

DELIVERED AT

St. Thomas's Hospital.

By THOMAS B. PEACOCK, M.D.,
Assistant-Physician to St. Thomas's Hospital, etc.

Lecture IV.

TYPHOID FEVER.—*Continued.*

Period of Death and Morbid Appearances.—The period at which death occurs in typhoid will readily be understood to be very different in different cases : thus, it may occur from the violence of the symptoms with which the disease is ushered in; or from some local complication developed during the progress of the attack; or from local inflammation or gradual exhaustion, during convalescence. I find that, in 17 fatal cases which were examined after death, omitting 2 patients who died on the 2nd and 28th days from their admission into hospital, and whose previous duration of illness was not ascertained, the period of death varied from the 7th or 8th day of serious illness to the 81st from the commencement of the disease; 2 patients died on the 11th and 14th days; 3 on the 67th, 69th, and 81st days from seizure, and 9 cases proved fatal between the 28th and 40th days, the mean period of death being the 37th day. These facts, you will observe, are strikingly different from the similar observations as to typhus.

The morbid appearances which are found in the bodies of persons who die of typhoid are divided by the French writers into those which are constant and those which are accidental. The former are those which are found in the alimentary canal; the latter consists of lesions of all the different organs of the body, and must be regarded as accidental complications.

The brain and its membranes may be found quite healthy, or there may be signs of inflammation. The bronchi, lungs, and pleura may be the seat of inflammation, or they may present no morbid appearances, and the same may be the case with the stomach, liver, and kidneys;—but more or less disease will always be found in the glandular apparatus of the intestinal mucous membrane.

On tracing the mucous membrane from the commencement of the ileum you will find the aggregate glands, or plates of Peyer, as they are termed, first becoming enlarged and elevated above the adjacent surface, and with the mucous membrane upon them minutely reddened and softer than natural. Lower down you will find the enlargement greater and the marks of inflammation more decided; and still lower, according to the period of the disease, you will have the surface of the plates, sometimes to a small extent, sometimes in a series of small specks, and sometimes over the whole plate, entirely gangrenous. At a later period, the eschars so formed are partly separated; and in a still later stage larger or smaller deeply excavated ulcers appear. The disease of the plates is described by MM. Chomel and Louis, as assuming two distinct forms, in one the plaques gaufrées or plaques dures, the enlargement is great, the surface irregular, and on elevating or cutting through the mucous membrane a deposit, a line or two in thickness, and of a yellowish or reddish white colour, is found infiltrated into the sub-mucous cellular tissue. This typhous deposit, as it has been termed, consists of lymph of a low organisation, containing imperfect cell-growths, and this, together with the thickening of the mucous membrane itself, gives rise to the general enlargement of the plate. In this form of disease, the destructive process may either commence in the softening of the deposit in the submucous cellular tissue, which, by cutting off the vascular supply, causes the gangrene of the surface of mucous membrane overlying it, or by ulceration of the mucous membrane itself. The sloughs being dyed by the bile, are of a yellow colour, and hence appear the "escarres jaunes" as they have been called. In the other form the plates are not much elevated, and the surface seems more composed of softened mucous membrane, and it has hence received the name of plaques a surface réticulée, or plaques molles. In this form, the surface of the plate projects at the edges, and is studded over by numerous small orifices; the mucous membrane is so soft as readily to be removed, and there is not generally much deposit in the submucous cellular tissue. The disorganisation seems to depend on ulceration or sloughing of the mucous membrane over the follicles. By one or other of these processes larger or smaller ulcers are produced, and these, when recent, have abrupt edges, and appear as if caused by a portion of the membrane being punched out. The bases of the ulcers are generally formed by the muscular coat of the intestines. After a time the ulcers begin to heal, their edges become depressed towards the base, islets of mucous membrane, with similar depressed edges, are seen in other parts of the ulcer; and the whole gradually heals and contracts, and, finally, no other remains of ulceration are found, but cicatrices.

The diseased plates, or the sloughs or ulcers, may extend a longer or shorter distance up the course of the ileum from the ileo-cœcal valve. In this situation the disease seems to commence;—here it is found most advanced and generally also most extensive. The solitary follicles in the ileum are generally similarly affected to the aggregate glands, and they are usually found to present the same condition in the cœcum and occasionally in the ascending, transverse and descending colon. The mucous membrane around the diseased follicles is more or less extensively and intensely inflamed. It is usually much reddened and softened or ulcerated, especially around the plates and solitary glands and particularly near the cœcum. The peritoneal surface of the intestines is also more or less involved in the disease. In the early stage it is somewhat opaque in the situations of the plates; at later periods, the membrane shows the quadrangular vascularity indicative of commencing inflammation; and at a still later stage, and when the typhoid disease has deeply penetrated the coats of the gut, there may be a surface of lymph, generally in the form of nodular concretions, on the peritoneal surface corresponding to the ulcer; or the adjacent folds of intestine may be more or less extensively matted together, or when the disease has involved the whole of the coats, there may be evidences of general peritonitis.

Besides these changes in the intestinal canal itself, the mesenteric glands are found in the early stage somewhat enlarged and more vascular than usual; at a later period they become still more enlarged and redder and softer; and as the intestinal disease heals, they again decrease in size and return to their natural condition. These changes are especially seen in the ileo-cœcal mesocolon, where the intestinal disease is most aggravated, The spleen also is constantly more or less affected during typhoid. At first it is simply enlarged; then it becomes softened and sometimes almost pultaceous; and, at a still later period, it gradually resumes its natural size and consistence.

The blood in typhoid is generally less firmly coagulated than is usual in other diseases, and sometimes it is entirely fluid; but these alterations are less marked in typhoid than in typhus.

Of the cases which proved fatal and were examined, none exhibited the disease of the mucous follicles in the earliest stage, or in the state of enlargement and engorgement, without the inflammation having produced sloughing or ulceration.

In five cases, the aggregate glands in the lower part of the ileum, and, in some, the solitary glands also in the ileum and cœcum, were enlarged; the mucous membrane covering them intensely inflamed and gangrenous; and the yellow sloughs were either still entirely attached, or only partially separated. The period of death in these cases was the seventh or eighth day of the disease in one case, but in this instance the patient had been indisposed for a further period of two weeks; the 20th day in one case; the 30th day in two cases; and the 28th day from admission in one case. In one case also the patient died on the second day from admission into the Hospital, the previous duration of illness in neither of these instances having been ascertained.

In three cases, larger or smaller ulcers, with abrupt edges, indicating the disease to be still in an active state, were found, and in these the patients died on the 22nd, 23rd, and 40th days.

In six cases there were ulcers with depressed edges, with islets of undestroyed mucous membrane, evidently in process of healing, together with cicatrices, more or less complete, in

ome. In these cases death occurred on the 28th, 33rd, 56th, 67th, 69th, and 81st days.

In the latter of these cases, the process of healing was nearly completed, and in the fourth this was also the case, and the patient died from acute dysentery, with intense inflammation and sloughing of the mucous membrane at the lower part of the ileum.

In two other cases, the intestinal disease was undergoing resolution, probably without having ever produced extensive sloughing or ulceration. The plates were found still enlarged, the mucous membrane of a dark leaden colour, and its surface in places slightly abraded. In these instances the patients died on the twenty-sixth and forty-seventh days from seizure.

M. Chomel states that he found the simple engorgement of the plates in cases proving fatal from the seventh to the thirteenth day; ulceration or sloughing coming on in places, in patients dying from the tenth to the fifty-eighth days; ulcers, from the twentieth to the forty-second days; and ulcers in process of healing, or the enlarged plates returning to their natural condition, from the seventeenth to the sixtieth days.

The immediate cause of death in the fatal cases, was, in six, gradually increasing prostration of strength, and torpor lapsing into coma, with or without convulsions.

In two cases, acute pleuropneumonia, with gangrenous abscesses in one.

In one, acute capillary bronchitis, with diphtheritic inflammation of the fauces and larynx, and erysipelas.

In two cases, acute cerebral symptoms, with diphtheritic inflammation of the fauces and larynx in one, and erysipelas of the head in the other.

In one, acute cerebral symptoms, with capillary bronchitis and sloughing of the vulva, the patient having laboured under gonorrhœa.

In one case, copious hæmorrhage from the bowels, with hæmaturia, sloughing of the sacrum, and intense jaundice.

In one, general exhaustion, from long-continued diarrhœa.

In three cases the patients died of acute inflammatory affections, occurring during convalescence. In one, in which there had also been copious hæmorrhage of the bowels, from otitis, and cerebral effusion. In a second, from acute dysentery; and, in the third, from acute pleurisy.

I have before alluded to the occurrence of perforation of the bowel as a not unfrequent cause of death in typhoid; and, though in none of the cases here referred to, did this result ensue, I have at different times seen death so occasioned in five cases, three of which I had the opportunity of examining after death.

The proportion of cases in which this untoward occurrence takes place seems very uncertain. M. Louis met with it seven times in 50 fatal cases; while of three cases of typhoid which I examined in Edinburgh, where, as I have before said, this form of fever is ordinarily very rare, two terminated by perforation of the intestine, and peritonitis. Perforation may occur, either during the height of the disease, or when it is drawing to a conclusion, or during advanced convalescence. Thus I have seen it in a man who had been ailing for some time, but seriously ill only eight days. In another on the 13th day; and in a third the patient died on the 13th day, but the date of the occurrence of the perforation was not precisely ascertained, but it could only have occurred a few hours before death. In M. Louis' cases, the perforation occurred, in one on the 12th day; in two on the 18th, and in five from the 22nd to the 42nd days. In two cases referred to by M. Chomel, the perforation took place on the 14th and 29th days. I have also seen it during advanced convalescence, when the patient was walking about, and its occurrence seemed due to his having been allowed injudiciously to indulge his appetite.

The symptoms by which the occurrence of the perforation is indicated are sufficiently characteristic:—The patient is seized, often with little warning, with violent pain in the abdomen, generally commencing in the right iliac space, and thence involving the whole surface; there is often violent vomiting and rapidly advancing prostration, and death ends in from 24 to 72 hours. A striking circumstance in reference to this complication, is its frequent occurrence in cases which have previously presented no alarming symptoms, and when, indeed, the disease has been of a mild type. Thus, of twelve cases recorded by MM. Louis and Chomel, two only had been of a severe character before the occurrence of the perforation; and I once saw, during life, the wife of a medical man, who, while recovering from childbirth, and without any premonitory symptoms, was suddenly seized with peritonitis, and on examination after death, the plates of Peyer in the lower portion of the ileum were found to present characteristic typhoid disease, and a slough had formed on one, which had involved the peritoneum, and so produced perforation. In some cases, however, there is pain in the ileo-cœcal region with evidences of subacute peritoneal inflammation, for a few days before the occurrence of the more urgent symptoms, or such symptoms may occur suddenly, and, by judicious treatment, the disease may spread no further.

When perforation occurs it is usually in the immediate neighbourhood of the cœcum. In one of my cases the seat of the rupture was nine inches above the cœcum. In another there were two perforations, one two inches above the cœcum, another eighteen inches higher up the canal. Of ten cases collected by M. Louis, all were situated near the cœcum, but of two reported by M. Chomel, one occurred at the termination of the colon in the rectum. In this instance there was only one ulcer in the seat of perforation. Sometimes the perforation is seen to occur in cases in which the ulcers are in process of healing, the base continuing to spread deeply. The perforation is generally the result of sloughing, and though the slough in the internal surface may be large, the aperture in the peritoneal surface is usually small, only a few lines in diameter. The condition of the peritoneum is that of peritonitis generally, the effusion of serum and lymph being more or less extensive in different cases, and according to the time which elapses between the occurrence of the perforation and the period of death.

The only question to which it remains for me to allude, is, what is the relation between the disease in the intestines, and the symptoms of constitutional disturbance which are manifested during life? Is the former the cause of the latter, as is contended by M. Bouillaud;—or, are they merely coincident effects of the same morbid process, as held by MM. Chomel and Louis? There can, I think, be little hesitation in deciding this question. If you carefully follow the career of cases of typhoid fever during life, and, when the disease proves fatal, investigate the condition of the intestinal mucous membrane after death, you will continually find, as MM. Louis and Chomel have shown, that there is no necessary and constant relation between them. You will see after death, in cases which have never presented very severe symptoms during life, and which may prove fatal from some accidental complication, the most extensive follicular disease; and, on the other hand, in cases which have been very intense, and have so proved rapidly fatal, you may find very slight evidences of local change. The most striking example of the latter kind which has fallen under my notice, occurred in M. Bouillaud's wards at La Charité, in 1843; and, in this case, though the intestinal disease was sufficiently marked to confirm the diagnosis of the affection as one of typhoid fever, the amount of the disease was altogether insufficient to explain the intensity of the symptoms and the fatal result. The inference to be drawn from these facts is, that the intestinal disease and constitutional symptoms are only coincident effects of the morbid poison received into the system, and that the follicular affection in typhoid bears the same relation to the general symptoms, as the eruption in small-pox does to the symptoms of constitutional disturbance in that disease.

I have selected the following cases as illustrating the symptoms and appearances in the body after death, in cases of typhoid fever which prove fatal at different periods of the disease:—

Case 6.—*Typhoid fever with predominant cerebral and intestinal complication proving fatal probably on the seventh or eighth day of severe indisposition.*—Charles Burling, or Murdock, aged 14, hawker in the streets, admitted under my care into the Royal Free Hospital on the 1st of October, 1847. It was impossible when admitted to ascertain with any certainty the duration of his illness; he was found lying in the street, and was carried, in a half-sensible state, to the hospital. A servant in the house where he had been living, stated, that he went out on 29th of September, and was at this time poorly, and had been ailing for a few days, and was very dissipated in his habits.

Oct. 2.—He was very greatly prostrated. The tongue dry, and covered with a whity-brown fur; the skin was hot and dry; the abdomen tense and tympanitic; and the gurgling in the right ileo-cœcal region was very distinct. There was no eruption on the skin. The pulse was 144; sharp, and occasionally in-

termittent. The bowels had been relieved six or seven times since the previous evening, and he had passed the stools in bed. His intelligence was extremely imperfect; it was with difficulty that he could be got to answer questions, and he then spoke very slowly and almost inaudibly. The pupils were dilated, and did not move on the stimulus of light. While he survived, these symptoms continued and became more urgent, so that during the day before his death, he was entirely comatose. He died at half-past six, a.m., on the fifth, or probably on the seventh or eighth day of the disease, though, as before mentioned, he had been ailing for some time previously.

Sectio Cadaveris.—A moderate amount of fluid escaped from the subaraehnoidal cellular tissue on removing the calvaria. The convolutions were somewhat separate and prominent, and the arachnoid membrane was opaque, thickened, and adherent to the pia mater. In the front of the longitudinal fissure, the membranes of the opposite hemispheres were adherent by firm, and evidently old, attachments. A small amount of clear fluid was contained in the ventricles. The brain was firm, and the bloody points somewhat more abundant than usual. There was a considerable amount of fluid at the base; the membranes were thin and transparent.

The bronchial mucous membrane was considerably injected, and there was some glairy mucus in the tubes. The right lung was attached, by old adhesions, to the parietes; the left was free; both were crepitant, free from tubercle, and somewhat engorged both posteriorly and inferiorly. The heart was flabby, and somewhat loaded with fat; the blood contained in its cavities was entirely fluid. The liver was large, and somewhat engorged; the gall-bladder distended, by a scarcely coloured and thin fluid; the spleen large, moderately firm, and of a deep purple colour; the kidneys large and congested.

The stomach was contracted; the mucous membrane at the guntic curvature a little injected, but retaining its natural thickness and firmness; the pyloric-valvular portion of the duodenum somewhat injected, and slightly softened; the remaining portion of the duodenum, and the commencement of the jejunum, free from appearances of disease. Towards the lower part of the jejunum the solitary glands were found somewhat enlarged, and this enlargement became greater, and affected a much larger number of the glands towards the termination of the ilium. The elliptic patches were also very large and conspicuous. and became more considerably affected towards the termination of the ileum. In the upper part of this intestine the plates were much enlarged, greatly elevated above the surrounding mucous membrane, irregular on their surface, and had their edges much everted. The mucous membrane on the plates was also unusually vascular, very thick, and decidedly soft, while the surrounding mucous membrane was only a little redder than natural, and not in any degree less firm. The mucous membrane covering the solitary glands was also reddened and softened. In descending the course of the ileum the disease became more advanced, some of the solitary glands were slightly ulcerated at their apices, and the plates displayed yellow and partly-separated sloughs on their surfaces. In the last two feet of ileum the mucous membranes on the plates was intensely inflamed and gangrenous, and the solitary glands were generally surrounded by intense inflammation, and were ulcerated. The solitary glands were, however, generally very large; and some found complete buttons projecting from the mucous membrane; the adjoining membrane was thickened, reddened, and soft. At the end of the ileum the whole of the intestinal tissues were thickened, and the valves were especially so. They projected into the cœcum, and their edges were covered by partially-separated sloughs. Externally, the peritonæum displayed some of the usual transverse vascularity. In the cœcum, ascending, transverse, and descending colon, the solitary glands were also enlarged, but less conspicuously so than in the ileum. At the upper extremity of the large intestine they were also very generally ulcerated and inflamed, but this became less in the course of the canal and the sigmoid flexure was entirely healthy. The intestines contained only some very pale, opaque, fluid. The mesenteric glands was greatly enlarged in the whole mesentery and nurcalon, but especially in the ileo-cœcal portion; they were generally not much softened or altered in colour, but in the latter seat they were both redder and more easily broken down. Other parts healthy. The body considerably emaciated.

Case 7th.—Typhoid Fever, with great and rapid prostration of strength, and intestinal and cerebral symptoms; fatal on the eleventh or twelfth day.—Thomas Garland, aged 16; sailor boy; admitted under my care into Jacob's Ward, St. Thomas's Hospital, on the 1st of November, 1855. He was quite well on the 28th of October, when he was at sea, having come from Goole in a coaster to London. He was out during the heavy gale of the 25th and 26th of September, and was much exposed to the weather. He then began to complain of headache and shivering, but had not had the bowels relaxed. No one else was ill on board the vessel.

The following notes were taken immediately after his admission:—

He has just been in the bath. Pulse 112 in the minute, and feeble. Tongue covered with a thick yellowish fur. There is no eruption on the skin. The hands are somewhat livid. There is pain in the head and body, and in the limbs. He required to be helped up stairs, and he is very much prostrated. He talks with difficulty. Ordered—Milk diet.

℞ Pulv. emetic. gr. xv. statim, quinæ disulph. gr. v. 2nda quâque horâ. Hair to be cut.

November 2.—He took the emetic at half-past 12 p.m. yesterday, and at half-past 2 he was sick and vomited, and at 3 o'clock was purged three or four times. He began with the pills at 6 o'clock, and took them again at 8 and 10 p.m.; he then slept, and had only one pill during the night in consequence; and he has slept at intervals since, and has had no medicine, so that he has taken only four doses up to this time (10 a.m.) His bowels were relaxed three times during the night, and he rambled very much during sleep. He looks very prostrate and torpid. Face much flushed; tongue very red at sides and edges, and dry and brown in the middle; pulse feeble, 94; skin dry and warm; pupils large; no cough; no signs of pulmonary affection; no eruption on the skin; very weak; requires to be moved in bed, and cannot at all raise himself; speaks intelligibly when roused. Ordered—Brandy 2 glasses.

Pil. 4tâ quâque horâ. Mist. cretæ c. opio et catechu, post sing. sædes, ammon. sesquic. gr. iij. ex., inf. serpentariæ ʒss. 4tis horis.

3rd, 1½ p.m.—Tongue dry and brown; skin moderately warm and dry; pulse 136; respiration 28, full and free; face livid, and hands purple. He lies in a somewhat comatose state; pupils somewhat large. He moans constantly, and passes his stools unconsciously. Bowels only once moved since yesterday; stools very liquid. He makes water freely, but passes it unconsciously. There is some slight crepitation on the left side of the chest, in front, and in both dorsal regions; but he breathes so feebly that the sounds cannot be distinctly heard. He took yesterday two pills, and then they were discontinued. He was sick this morning, and brought up much mucus. Ordered—Brandy 8 glasses. Mist. 2dâ quâque horâ, applic. liq. vesic. nuchæ, beef-tea and arrow-root.

4th, 11½ a.m.—He has not slept, but has moaned less, and is, upon the whole, somewhat better. The bowels have been acted on three times, and the motions are liquid. He has made water, but his evacuations are passed involuntarily. The blister has risen at the nape of the neck, and he feels it. Pulse feeble, irregular, and intermittent, 64; tongue dry and brown, and sordes on the teeth; no eruption; some rhonchus and crepitation at the end of a forced inspiration in the dorsal regions; respiration quiet.

5th, 11 o'clock a.m.—He is much more prostrated, and has been getting in and out of bed the whole night. He is now nearly comatose. The hands are quite cold and purple; the feet also cold, but less livid; his countenance is also very livid; pulse about 140, and so feeble as to be numbered with difficulty; pupils large and torpid; tongue dry and brown, and sordes on the teeth; mouth and cheeks warm; no appearance of eruption. He passes everything involuntarily. Respiration in front natural; sounds of the heart very imperfectly pronounced, but apparently without murmur; bowels acted on only three times since yesterday morning. Ordered—Brandy 4 glasses.

Abrad. capillit. appl. liq. vesic. Mist. omni horâ.

6th, 3 o'clock p.m.—He is rather more intelligent, but still very much prostrated. He can be got to answer, but speaks scarcely intelligibly. Sordes on the teeth; tongue dry and brown, can but feebly protrude it; face and hands livid and cold; bowels acted on twice in the twenty-four hours. He makes

water, and passes his motions consciously. Stools less relaxed. Has taken food and stimulus better. Pulse rapid, but stronger. There is no eruption.

7th, 2 p.m.—Upon the whole he seems somewhat better. He is more intelligent when spoken to, but cannot speak so as to be understood. He is conscious when he passes his motions. Skin cool; face and hands still very livid; pulse 140, and very feeble; respiration 28; tongue dry and brown; he cannot protrude it; pupils somewhat dilated. The skin is less harsh. There is no eruption. Chest fairly resonant on percussion. Respiration fuller and freer, and without rhonchus.

Applic. liq. vesic. capit.

8th.—Pulse 128, of better volume; more intelligent. He passed a very restless night, moaning constantly, but probably from irritation of the blisters on the scalp. Bowels acted upon three times; tongue dry and brown; teeth covered with sordes. He takes his food.

He died on November 10, 1855, at 9 a.m., or on the eleventh or twelfth day of illness.

Post-mortem examination.—The surface of the body generally livid, more particularly the hands and face, and the blood generally fluid.

Lungs free from adhesions; the posterior part of right lung congested, and sparingly crepitant; the left lung also sparingly crepitant; the bronchial mucous membrane somewhat injected; tubes free from secretion.

Liver natural; gall-bladder distended with a perfectly colourless secretion. *Spleen* large but firm, weighing ʒxjss *Heart* natural.

Brain.—There is some slight effusion beneath the arachnoid; vessels of the pia mater somewhat turgid; substance of the brain also congested, but retaining its natural firmness; no effusion in the ventricles, but slight effusion at the base, membranes natural.

Mesenteric glands somewhat enlarged and red, but not softened, more particularly in the ileo-cœcal region. The mucous membrane of the œsophagus healthy. The stomach contained a large quantity of pultaceous fluid, of a yellow colour. Mucous membrane a little softened towards the pyloric extremity, but elsewhere admitting of being drawn off in long strips; duodenum healthy; jejunum also healthy, containing pultaceous fluid, somewhat tinged with bile. At the commencement of the ileum, Peyer's plates become very conspicuous; they were elevated above the mucous membrane, and the surface was roughened and reddened, and, at a short distance below this point, they were considerably elevated above the adjacent membrane, surrounded by an elevated margin, and studded on their surface with irregular apertures, and presenting the appearance of yellow eschars. The mucous membrane also around the diseased plates was congested and thickened. The large intestine contained a quantity of thin feculent matter, of a yellowish-green colour, and towards the cœcal extremity the rugæ were somewhat reddened. In the cœcum, there were numerous thickened, reddened, and ulcerated solitary glands; and the ileo-cœcal valve was very much thickened, reddened, and passing into gangrene; and, above this point, the gangrenous patches had in some places separated, and in others had the usual yellow appearance.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASES OF GIDDINESS, EPILEPSY, &c,

PART OF A SERIES ILLUSTRATING

AFFECTIONS OF THE NERVOUS SYSTEM, OF ORGANIC AND INORGANIC ORIGIN,

WITH

CLINICAL AND PATHOLOGICAL OBSERVATIONS,

By JOHN W. OGLE, M.D., F.R.C.P.,

Curator at St. George's Hospital, and Physician to the St. George's and St. James's Dispensary.

(Continued from page 164 and 108 of Vol. VII.)

The following four cases, like the preceding five, contain instances of vertigo, spasm, headache, and various other epileptic or epileptoid symptoms, having their origin in distinct and functional derangements, being inorganic or excentric. They are, also, instances of the recovery from such alarming and troublesome symptoms by treatment, mainly simple enough, addressed to the correction of acidity, the regular relief of the bowels, and the careful administration of digestible but nourishing food. None of the four cases illustrate any extreme spasmodic condition, or yet any extreme functional disorder of viscera, dependent on or sympathetic with that of the alimentary tract.

Case 6.—A young man, aged 27, was brought to St. George's Hospital, at one o'clock p.m., quite insensible. He was employed in a gunsmith's shop; having been not "quite the thing," as he afterwards said, during the morning, while filing some steel, and consequently stooping, he was seen by others to fall gently down, and become quite senseless. When brought to the Hospital, the limbs were quite flaccid, and remained wherever placed, and the patient could not be roused so as to move them at all, nor was there any movement on his being pinched, etc. There was no facial paralysis; the eyelids were closed, but constantly winking, and the pupils were very dilated, not acting under the influence of light. The eyeballs were constantly rolling from side to side. On blowing upon the eyelids, reflex action was induced in both very strongly, but no reflex action could be induced in the arms or legs or toes. The mouth was open, and occasionally swallowing of the saliva occurred. No bitten tongue, or foaming, or snoring existed. The skin was cool and pale; the pulse moderately full, and about 80 in a minute. The patient remained in the same condition until half-past three p.m., when he gradually became sensible, and sat up, not knowing what had taken place. He walked back to his work. I saw him two days afterwards, and found that he had been a little unwell, and rather pale since the attack. He had never experienced a similar one at any previous time, nor has he since.

Nothing was done for the patient, except giving him some sal volatile and water, which he swallowed by degrees.

Remarks.—The points of interest in this case are—

1. The absence of anything like spasmodic action, except in the muscles forming the eyelids; also, the absence of stertorous symptoms in a case of such complete unconsciousness, with dilated, inactive pupils, etc.

2. The quick and complete recovery after such urgent symptoms, showing the absence of any serious organic lesion.

Case 7.—J. C. S., aged 47, a healthy-looking man, who for several weeks had been subject to sensations of fulness and distension of the head and upper part of the body, which felt as if they "were going to burst," to use his own expression. He complained that the carotid arteries often throbbed, the fingers tingled, and a feeling as of pressure over the trachea and in the sub-lingual region, like strangulation, was experienced, with a sense of "great weight" in the chest. Whenever these sensations were complained of, there was, along with them, very violent irregularity and palpitation of the heart, and intermission of the pulse after every third or fourth beat, the intermission being followed by one or two violent pulsations. When quite at rest the palpitation was only slight, but it was readily aggravated by eating and by bodily and mental excitement, from which he was partly relieved by lying down, provided the stomach was empty, but not otherwise. Formerly he was much subject to singing and "rushing noises" in the ear, but had not been much troubled with them lately; neither had he had the attacks of "bilious vomiting" to which he was formerly so subject.

After eating, the tendency, as he calls it, "of blood to the upper parts of the body," and the tingling of the fingers, was increased and attended by flatulence, weight at the pit of the stomach, palpitation, and general oppression of "all the powers." Sleep was generally sound, but usually accompanied by twitching of the muscles of the right leg. The tongue was rather furred, and the bowels a little confined, the urine being natural.

Under the use of alkalies and gentle aperients, with frequent but small and easily-digested meals, the patient quite recovered in a few weeks.

Remarks.—The points worthy of interest in this case are—

1. The irritation of stomach and bowels, as shown by flatulence, epigastric pain, increased on taking food, being the efficient cause of the general disturbance.

2. The presence of trachelismus. The feeling of fulness of the vessels, and the rushing noises in the ears, being probably caused by muscular pressure on some of the veins of the neck, and the tingling of the fingers being possibly also

due to similar pressure on the nerves in the neck going to form the brachial plexus, though the latter may also have been a subjective sensation caused by some cerebral congestion.

3. The absence of anything like laryngismus.

4. The presence of unusual irregularity of the heart's action, its motor nerves being unduly excited through the centripetal nerves of the stomach and bowels, the pneumogastric or the sympathetic: also, the muscular twitching of the leg during sleep only.

Case 8.—T. C., a Student in Medicine, aged 22, of general good health, was obliged to work intensely, and to live very irregularly as to food. He became subject to slight pain in the head, generally with confusion of thought, on any increased mental or bodily exercise. Having been for some time subject to this, while walking one day with some friends he was suddenly seized with giddiness, and a sense of weight at the right side of the head, a feeling of fulness in the right ear and eye, and what he called "a creeping sensation" in the left leg. By assistance he managed to walk home, and in the same afternoon had an attack of rushing into the head, flushing of the face, which became "purplish," and a choking sensation at the throat; but at no time was there any visible spasmodic action. On the evening of the same day he had a second attack of the "choking." Being out of London, very decidedly lowering treatment and strict abstinence were prescribed for him, and he shortly got into a highly anæmic condition, which was increased by frequent doses of calomel, given to him under the mistaken impression that some dark-coloured eczema, which he was affected by, were secondary symptoms. He recovered under the use of tonics. During this time the sensations about the head were less felt, owing, as the patient thought, to attention being occupied by the other symptoms. On recovering from the eruptions, etc., however, they recurred, and he was treated with sulphate of zinc, etc. Not obtaining benefit, he gave up medicines, and got better on a more nourishing diet, but by no means got well. Whenever he was irritated, or began to exert his mind, the choking feelings and the odd sensations about the head would come on to a certain extent. He then was obliged to come to London, where much work and little exercise, as he thought, brought on increased head-symptoms of the same kind. After this, he again went into the country with benefit, but as the symptoms were only mitigated, he came again to London, and was treated for some weeks by alkalies and gentle aperients, and careful regulation of his meals. Under this treatment he gradually became convalescent, until he left London, but still was so far from being quite well that any over-excitement or irregularity of food would cause slight choking feelings, and slight "creeping" of the leg. I have heard nothing of the patient since.

Remarks.—The objects worthy of note in the case are—

1. The repeated presence of "choking" sensations, or trachelismus, accompanied, in one instance, at least, by purpurescence of the integuments of the face.

2. The absence of laryngismus; the absence of any convulsion, bitten tongue, foaming, etc.

Case 9.—G. B., a tailor, aged 38, a Dispensary patient, had been ill for several weeks with giddiness, dimness of eyesight, and "sick headaches," the headache following the dimness of sight. Very often he could not see objects across the room distinctly, which also often appeared in "the wrong places," that is, an inch or two more separate than they really were. The pain in the head was described as being for the most part of a piercing character, and mainly situated over the right eye. The attacks had come on every week, and generally at a time not long after dinner, when the patient was sewing. He had never had any fit, or had to complain of deficient memory; and his special senses and mental powers appeared to be altogether intact. The pupils and the power of movement in the eyeballs, as well as the muscular power in the face and extremities were natural. The pulse was natural; the tongue was dryish and furred; the bowels confined, and the urine of a deep colour, but free from deposits and albumen, and voided with comfort. I ordered him a scruple each of the carbonate of soda, carbonate of magnesia, and powdered rhubarb every morning, and a scruple of the saccharated carbonate of iron three times a-day. The patient could not give up his work as I recommended him.

At the end of one week the giddiness and the headache were described by the patient as being decidedly less, and he was more cheerful. Continuing the alkaline and the tonic treatment for another week, he was still improving; but, as the bowels were not very freely open, he took aloes and senna draughts in addition. At the close of the third week the patient declared that, except dimness of sight, which was only very rare, he was quite well; and in a few days more desired to be discharged as quite well.

Remarks.—In the above case we have an instance of almost the lowest stage of what may be termed the epileptic scale—nothing but giddiness; headache, which was not very severe; and occasional vomiting; all apparently dependent on some irritation or unnatural acidity of the stomach or bowels. There was no laryngismus, no trachelismus, no spasm, bitten tongue, or foaming, etc., and the slight symptoms yielded promptly to antacids and aperients.

13, Upper Brook-street, Grosvenor-square.

[To be continued.]

PROFESSOR WUTZER'S OPERATION

FOR THE RADICAL CURE OF

REDUCIBLE INGUINAL HERNIA,

SUCCESSFULLY PERFORMED BY

JAMES STRETTON, Esq., M.R.C.S.

Assistant-Surgeon to the British Hospital at Renkioi

This operation is so rarely resorted to in England that, doubtless, some of the readers of the *Medical Times and Gazette* are unacquainted with it; but, instead of encroaching upon your valuable columns by attempting to describe the mode of performing the operation, I may beg to refer to the XXXVIIth Vol. of the "Med. Chir. Transactions," which contains an able description and report of several successful cases by Mr. Spencer Wells, our Senior Surgeon. I ought not to omit to state, that it was solely upon this gentleman's responsibility that I undertook the operation in the present instance; but, should another opportunity present itself, I should operate without the slightest hesitation, feeling sure of its comparative harmlessness and infinitely less dangerous results than that which might otherwise be anticipated.

Case 1.—Stephanie, aged 23, a carpenter by trade, applied for relief April 19, 1856. He had suffered three years from oblique inguinal hernia on the right side, which lately prevented him from following his employment, owing to its increasing size and dragging pains on the slightest exertion. He enjoyed good health, but was somewhat emaciated, owing to his destitute condition; for he was an orphan and reduced to beggary. The hernia was of large size, but easily reduced, owing to the canal being very capacious and elastic. I requested him to keep his bed, and ordered a dose of castor-oil, to prepare him for the operation, which I performed on the 22nd of April, during the performance of which he did not evince the slightest pain. The effects of the instrument were carefully watched, and it was lightened or relaxed just to such an extent as not to cause the slightest pain or inconvenience. On the sixth day it was removed altogether, and the invaginated portion of the scrotum remained firmly adherent in its new position. A slight red flush indicates the position of the external portion of the instrument. A slough, of the size of a sixpence, had formed at the distal extremities, where the points of nerves had met; this was owing to the cylinder being too small, although it was the largest Mr. Wells had with him, an evil I had attempted to remedy by applying upon it several layers of plaster. Powdered charcoal was applied to the sloughing surface; and, on the third day after the removal of the instrument, a free communication was established between the invaginated portion of scrotum and the external abdominal wall. This healed rapidly; and, on the fourteenth day after the operation, he was able to bear a truss, and walked about with ease. On the twenty-first day, he felt so well that he was determined to get to work; accordingly he left this neighbourhood. I have seen him on several occasions lately. The adhesions remain quite firm; and, although I insisted upon his wearing the truss for at least three months, until the new adhesions had become consolidated firmly, he has entirely discarded it; for, finding the swelling does not return, he is perfectly contented. He has promised to report himself after six months to the Greek consul, who has kindly promised to write and inform me of his condition from time to time.

Renkioi, June 30, 1856.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

SERIES OF CASES IN WHICH INSTRUMENTS WERE BROKEN INTO THE BLADDER.

The escape of small calculi by the urethra is an event of not unfrequent occurrence. The difference, however, in form between a calculus and a portion of catheter, or bougie, might be supposed to be such as to prevent the experience obtained respecting the one from being applicable to the other; and at first sight the probability of the escape of a fragment of the latter might be thought to be infinitely small. As upon the estimate of that probability will depend the propriety of the performance of lithotomy, it is of great consequence that it be accurately made, and with the hope of furnishing some data for its decision, we place the following cases in juxtaposition. Before passing to them we will briefly mention two others, the particulars of which Mr. Coulson, under whose care they occurred, has kindly informed us of.

In the first of these, a gentleman had a silver catheter (No. 6) broken, and about three inches retained in the bladder. Repeated attempts with the lithotrite and various forceps were made to seize it, both by Mr. Coulson and the late Mr. Key, but without any success. Six weeks after the accident the fragment passed spontaneously.

In the second, about five inches of a small silver catheter were retained in the bladder. Mr. Coulson succeeded in seizing it with a lithotrite, and although it was caught crosswise in the middle, yet it bent and doubled sufficiently to allow of its being dragged out. An elastic catheter was worn for a few days afterwards, in order to protect the urethra from the consequences of any laceration which might have occurred, and the man recovered well.

In two of the cases to follow (those under the care respectively of Mr. Lawrence and Mr. Hutchinson), portions of the bougie escaped spontaneously, and with the first of the preceding we have, therefore, three examples of this occurrence. In the remarks appended to the last the writer has endeavoured to explain a plan of treatment which appears very likely to favour this most desirable termination. The cases appear to him quite sufficient in number to warrant the Surgeon in declining to undertake so serious an operation as lithotomy until, by the urgency of the symptoms caused (as in Mr. Cock's case), immediate relief is made necessary.

ST. BARTHOLOMEW'S HOSPITAL.

GUTTA PERCHA BOUGIE BROKEN INTO THE URETHRA—OPERATION AND REMOVAL OF PART—SPONTANEOUS PASSAGE OF THE REMAINING PART—RECOVERY.

(Under the care of Mr. LAWRENCE.)

William Slater, aged 44, a weaver, in fair health, was admitted on March 29, 1854, on account of having that morning broken a gutta percha bougie into his bladder. He brought with him the other portion of the instrument with which the accident had occurred, which was one made by himself, and about the size of No. 7. He believed that the portion left in the canal was at least six inches long. It appeared that he had, for a long time, been the subject of stricture, and had been attending Mr. Wormald's out-patient room on account of it. Mr. Wormald had, with some difficulty, succeeded in dilating the stricture up to No. 4, and since that the man had for three months continued the treatment with his own instrument, and had gradually got up to No. 7. When the accident occurred, one of this size was passed quite into the bladder, and was held pretty tightly by the stricture. Some force being applied to withdraw it, the material gave way and almost the whole length remained in the urethra. By kneading it forwards the man succeeded in breaking the retained part and in extracting more than half of it, but as the remaining part was deeply placed and he could not get it forwards, he at once came to the Hospital. He had walked to the Hospital, and did not appear to have suffered much pain.

On examination the retained part might be felt from the perinæum.

Mr. Lawrence made various attempts, with forceps, etc., to seize the extremity in the urethra, but these failing, an incision of about an inch and a half long was made in the perinæum, and the urethra opened. Unfortunately the fragment again broke in extraction, and a small portion was now left free in the bladder. The canal of the urethra being now freed and the stricture divided, it was, however, thought best not to make any further attempt at immediate removal.

During the next few days the urine flowed wholly by the wound. The man suffered no material constitutional disturbance, nor were the bladder symptoms severe.

On April 8th (eleven days after the accident) on waking, he found that the remaining fragment had escaped by the wound and was lying in his bed. It had the rounded end of the instrument, and fitting with the portions previously removed, it was evident that the whole had now been got away. After this the wound healed well, and the man left the hospital about three weeks later with it all but closed.

GUY'S HOSPITAL.

GUTTA PERCHA BOUGIE BROKEN INTO THE BLADDER—LITHOTOMY FOR THE EXTRACTION OF THE FRAGMENT—RECOVERY.

(Under the care of Mr. COCK.)

It might, perhaps, be thought that the circumstance of having once broken a home-made bougie into the bladder, and having had to undergo an operation for its removal, would be sufficient as a warning to most men to deter them from the repetition of such experiments. The subject of the following case is, however, the same individual with that of the preceding. Soon after his discharge from St. Bartholomew's, his stricture again began to trouble him, and he again betook himself to the old method of relief, and after an interval of eighteen months found himself for a second time, obliged to seek relief, on account of having broken his instrument into the bladder.

William Slater, aged 46, was admitted under Mr. Cock's care on October 5. He was a pale, very sensual-looking man, of intemperate habits, and in bad health. He stated that on the morning of October 2 (three days ago), he had broken a gutta percha bougie of his own manufacture into his bladder. The portion left in was, he believed, about five inches in length, its size being about equal to a No. 4. During the three days which had since elapsed he had passed water without instrumental aid, and although some irritation had been caused, it had not been very severe.

It was found, on sounding, that the stricture would only admit a No. 3, and with this the foreign body could not be felt with any certainty. Under these circumstances, a rapid dilatation seemed desirable, and this was effected by using firm elastic instruments, and allowing them to remain in as long as could be borne. The bladder was injected several times, but would hold but small quantities of water. Under this treatment the stricture was dilated until it would receive a No. 7, but still the foreign body could not be felt with any positiveness. Both bladder and urethra being diseased and extremely irritable, Mr. Cock did not deem himself warranted in employing either forceps or lithotrite with a view to the extraction per urethram.

October 16.—The man has up to this time refused to have an operation, believing that he should pass the fragment by the urethra. His symptoms of irritation have, however, so much increased, that he is now willing to submit to the operation which has been repeatedly proposed to him. His urine for some days past has contained blood, ropy mucus, and phosphates, and the pain suffered has been very great. It is now a fortnight since the accident. An ordinary lithotomy staff and knife being employed, Mr. Cock to-day performed the usual operation for stone, making, however, only a partial section of the prostate. The incision just allowed of the introduction of the finger, by which the foreign body was easily discovered. With a pair of small forceps three separate portions of bougie were successively removed, in each case the fragment being coated with phosphatic deposit. The portions, when fitted together, made up a length of about five inches, and evidently constituted the whole of the retained fragment. A careful examination of the bladder was made, and nothing further discovered.

The man's progress after the operation was uninterruptedly good. He had, however, rather a sharp attack of orchitis in the left testicle, but it subsided under the usual treatment. The urine passed solely by the natural channel within two weeks of the operation, and before the end of a month the wound was soundly healed.

In this case the old standing disease of the bladder and urethra offered a most serious complication, not only preventing the trial of instruments for the removal of the offending body by the natural channel, but not permitting of delay in order to give it the chance of spontaneous escape. At the time the operation was performed the man's condition was such as not only to warrant but to imperatively demand it. There can be no doubt but that, under such circumstances, it is the Surgeon's duty to lose no time, and to risk nothing by the trial of doubtful measures, but at once adopt a radical operation, and get rid of that which, if allowed to remain, might occasion serious organic mischief. In this respect this case, and one soon to be narrated (Mr. Hutchinson's) are very dissimilar, and must be looked at from perfectly distinct points of view, in determining the plan to be adopted in each.

FOREIGN BODY IN THE BLADDER—LITHOTOMY FOR ITS REMOVAL—RECOVERY.

(Under the care of Mr. CALLAWAY.)

A young man, aged 18, following the occupation of a mercantile clerk, applied for relief at Guy's Hospital, under peculiar circumstances. He was tall, and of spare frame. He had a pallid complexion with dark eyes and black hair; his manner was very nervous and excited, and after considerable hesitation stated that he had "something the matter with his penis."

On examination, a piece of string was found hanging from the urethra and suspending a horn shoe-lift; gentle, but ineffectual efforts were made to withdraw the string. On enquiring into the circumstances that presented themselves, the following history was elicited from the patient. He was addicted to drinking, and had, moreover, for years been a slave to the vice of Onanism. With objects best known to himself he had prepared a piece of French chalk, of about one and a-half inch in length, and having rounded it like a tobacco pipe, attached to it, by a central groove, a piece of string. He had then passed this along his urethra, drawing it forwards, and working it backwards in the canal so as to produce excitement. During these manipulations, something, he said, "gave a suck" and he was unable to draw the chalk forwards. He immediately became alarmed and fearing it might pass into his bladder, he tied the shoe-lift to the hitherto free end of the string, and about two hours afterwards, feeling considerable pain, and being unable to pass his water, he came to the hospital.

The shoe-horn being detached, a sound was cautiously passed down the urethra as far as its prostatic tract but no foreign body could be detected. An elastic bougie, open at its end, was then slid over the string, with the idea that the string would be an infallible guide to the position of the object sought for; nothing was, however, felt. Three different instruments, made expressly by Charrière for the seizure and extraction of foreign bodies in the urethra, and with no better success. Throughout these attempts the string had been held steady, and no instrument had been passed beyond the membranous portion of the urethra, Mr. Callaway being anxious to avoid pushing the object into the bladder. Weighing all the circumstances of the case, and having the advantage of Mr. Cock's coinciding opinion, it was decided that the piece of chalk was either in the prostatic portion of the urethra, or within the bladder itself; and as the symptoms were urgent (the patient making a little water with pain every quarter of an hour), it was determined to relieve him by an operation.

A straight staff having been passed into the urethra as far as its prostatic portion, a vertical incision was made through the raphé of the perinæum, and the knife carried onwards to the membranous portion of the canal, so as to open it. The finger was then passed into the wound, but no foreign body could be felt; and it was now observed that the string had been divided by the knife, and being loose, came away. The straight probe-pointed knife was then run along the groove of the staff, so as to open the urethra more freely; this allowed the introduction of the fore-finger into the neck of the bladder, so as to dilate it; and very shortly the piece of chalk could be felt within the bladder, and was easily extracted with a small pair of lithotomy forceps. There was some slight hæmorrhage, which was controlled by taking up a vessel, and the introduction of a piece of sponge.

The patient afterwards did well; the urine passing for the first time through the natural passage, twelve days after the operation. By the twenty-second day it passed entirely that way; and upon the thirty-eighth day he left the Hospital, the wound being nearly healed.

THE METROPOLITAN FREE HOSPITAL.

GUTTA PERCHA BOUGIE BROKEN INTO THE BLADDER. — SPONTANEOUS ESCAPE OF THE FRAGMENTS ON THE SEVENTH DAY.

(Case under the care of Mr. HUTCHINSON.)

Thomas Emmons, aged 27, was admitted as an out-patient on account of stricture of the urethra, in May, 1855. After a three months' treatment by dilatation, his urethra admitted No. 9 easily, and he was now directed to attend once a month in order to be secure against relapse. He was in no pain, but a very nervous, fidgety man. He attended regularly, and his stricture remained patent; but fancying that the instrument was not used often enough, he constructed for himself a gutta percha bougie, and proceeded with its regular introduction.

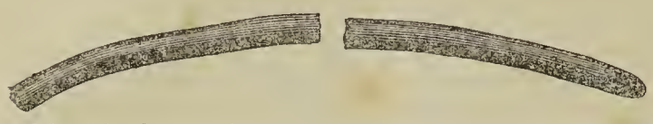
On Tuesday, June 10, he applied in great alarm, stating that he had, three days before, broken his instrument into the bladder. He brought with him a portion of gutta percha, rolled after the rudest fashion into the rounded form, and about the size of No. 7, the end of which was broken, and from which, he believed, about three inches had been left in the bladder. He stated that, since the accident, he had suffered, at times, a good deal of pain in the bladder, but he had passed no blood, and the symptoms of irritation did not appear, from his description, to have been severe. He had voided his urine without difficulty. He was at once admitted as an in-patient.

On examining the urethra, it was found that No. 8 could be introduced with ease, and encountered no obstacle. A careful sounding was made with steel instruments, but the foreign body could not be felt. Examination by the rectum, and of the perinæum, however, in addition to the evidence afforded by the free passage of the sound, made it quite certain that the fragment was in the bladder, and not lodged in any part of the urethra. He was ordered to be confined to bed, and to take opiates.

On the following morning he had slept fairly, and the only indications of irritation were pain after emptying the bladder, and the presence of mucus, in small quantity, in the urine. He had voided no blood. A second examination was made, and with the same result as the previous one; the foreign body could not be felt with any certainty.

On the third day after admission, careful but repeated attempts were made with various modifications of forceps, constructed for that purpose, to seize the detained fragment. Once or twice it was thought to have been caught, but about this there was no certainty, and the attempt failed. At the conclusion of the trial, which had lasted half-an-hour, and in which instruments fully the size of No. 10 had been used, the bladder was injected with water to distension; it received, in addition to what was already in, about a pint, and could be felt to rise over the pubes. As soon as the injecting catheter was withdrawn, the man was obliged to void his water, and about a third part was passed in full stream, but without any unusual circumstance. About six hours later, however, he rose to micturate, and in commencing the act suddenly "felt something slip into the neck of the bladder." He suffered great pain for a few minutes; but, on passing his finger to the perinæum, to examine, was delighted to find that the bougie was in the urethra. By a process, as he afterwards described it, of forcible kneading forwards, he succeeded in getting out a fragment about an inch in length. The uneasiness in the perinæum did not wholly subside; and about five hours afterwards, on again attempting to pass his water, he found another portion of bougie occupying the passage. Repeating the process which had succeeded before, he again managed to bring it forwards and remove it. The two portions fitted where broken, and evidently constituted together the whole retained fragment. They were nearly three inches in length when

joined. They were but very thinly coated with phosphatic deposit. The appended sketch shows the exact size and length of the fragments.



Although the man's manipulations in squeezing the fragments had been sufficiently forcible to cause bleeding, yet no material irritation followed. The man left the Hospital three days afterwards, and when seen a week later was quite free from vesical symptoms.

Remarks. — In this case a consultation of the Surgical Staff of the Hospital was held the day after the man's admission, as to whether lithotomy ought to be performed. In the absence of symptoms it was unanimously decided that so serious an operation ought to be deferred. Although, however, the bladder was healthy, and the urethra dilatable, but little hope was entertained but that lithotomy would have to be the final resource, the fragment being believed to be too long for it to be likely for either end to find its way into the urethra. The unexpected result of the case is full of instruction as to what in any similar case should be the measures of treatment adopted. There can be little doubt but that by the distension of the bladder a few hours before its escape, the fragment had been dislodged, and made to take the proper position for escape. In an empty, or nearly empty, bladder, the most likely position for an elongated body to assume would be either crosswise or vertical, both of them equally unsuitable for its entering the urethra. So long as only such quantities of urine were allowed to remain as the patient's feelings permitted of without discomfort, so long in all probability would the distension of the bladder never be sufficient to enable the fragment to change its place. Once distend the viscus to the utmost, and give it a longest axis from before backwards, and the chances are not inconsiderable that the foreign body may change its position, and come endwise into the urethra. To have previously well dilated the latter by large instruments will manifestly be so much an advantage; but the main point is to secure the right direction of the foreign body. If the funnel shape assumed by the neck of a distended bladder be borne in mind, it is very easy to conceive how, when once such a body as a fragment of catheter has got its end forwards, it may be directed by the contractions of the emptying viscus into the urethra itself. That which, looked at without consideration, seems a matter of almost infinite improbability, becomes one which has many chances in its favour. Thus, then, we come to the conclusion, that in all cases of retained portions of bougie, etc., in which the bladder and urethra permit of it, dilatation of the latter by instruments, and distension of the former by injections, should constitute the main features of treatment. The Surgeon must be hopeful, and, so long as the symptoms caused are not of immediate urgency, he must wait.

ST. MARY'S HOSPITAL.

CHRONIC DISEASE OF THE HIP-JOINT—CASES AND REMARKS.

(Under the care of Mr. COULSON.)

There are many points involved in the consideration of this affection which, being of great practical importance, cannot be too often insisted on. Disease of the hip-joint, or affections somewhat resembling it, but which differ from it essentially as widely as it is well possible for two affections to differ, are of very frequent occurrence, and it would appear that the error of mistaking one of these for what is a serious, and often a dangerous one, viz., true hip-joint disease, is one by no means unfrequently made. Why this is the case, we need not here stop to inquire. The improved character of the Medical education of the present day will, doubtless, do much to lessen the number of these mistakes in future, mistakes which it would seem almost impossible to make, were the symptoms duly and attentively considered. Hysterical affection of the joint, sciatica, rheumatism, disease of the sacro-iliac synchondrosis, psoas abscess, etc., etc., have all, in their turn, been mistaken for, and pronounced to be, cases of hip-joint disease, n the true sense of the word. It is not necessary to observe how greatly the reputation of the Medical attendant depends on the accuracy of his diagnosis, and especially in cases of this description. The case which will be detailed below, is given as illustrating some of the points usually necessary to be considered when a case of this kind is brought under notice.

Hip-joint disease is one arising, in the majority of instances, in individuals of the tuberculous diathesis, and consequently it is, for the most part, a disease of youth, and not of old age.

The disease begins in one of the tissues involved in the composition of the hip-joint, either in the ligamentum teres, or in the head of the femur, or in the synovial membrane of the joint; opinions differing on this point, owing to the very great rarity with which it is possible to examine a case at the commencement of the disease. The affection has three stages, the first characterized by pain in the joint itself, and especially in the knee-joint of the affected limb, impeded motion of the extremity, and some degree of stiffness; the second, by wasting of the limb, its apparent elongation, increase of pain, progressive diminution in the power of using the leg, subsidence of the pelvis on the affected side, accompanied with an alteration in its general direction; the result of which is, that the anterior spine of the ilium projects forwards on the diseased side, and the inferior part of the pelvis is also directed more forwards than usual. This alteration in the position of the pelvis is the reason that the limb appears longer than the sound one, although it is possible that an accumulation of fluid within the cavity of the joint may have a somewhat similar effect occasionally. To the uninitiated the limb appears actually lengthened, and it is only by careful measurement that the observer will be able to convince himself to the contrary. It is, however, necessary to observe that this measurement will not always give satisfactory information, and the results will be somewhat different, according as the measurement is made while the limb is in the position of abduction or adduction; in adduction there will be an apparent lengthening, as compared with the sound side. To these symptoms must be added the flattening and lowering of the buttock on the affected side, very obvious when, in order to compare the two sides, the patient is made to stand upright. Pain is felt in the joint when the foot is struck suddenly on its inferior surface; but more frequently, when the blow is applied over the great trochanter. This latter plan should be always adopted in attempting to ascertain the existence of tenderness in the joint.

When the third stage sets in, it is marked by the following symptoms:—The movements of the limb are still more impaired, the patient complains greatly if the position of the limb is disturbed, and usually lies on the sound side, resting the affected limb in a bent position on the thigh of the other leg. This position is indeed often observed previously to this period, but it is now more constant. The suppuration going on within and around the joint gives rise to the formation of sinuses and fistulous openings for the purpose of evacuating the matter, and these run for the most part downwards between the muscles, and backwards. Rigors, want of rest, febrile symptoms and hectic are now observed. The termination is sometimes favourable, anchylosis taking place between the head of the femur and the acetabulum, and the patient getting off with a stiff joint. In very many instances, however, this result is not to be looked for, the disease progresses and with it the disintegration of the tissues around the joint. The ligamentum teres is destroyed, the head of the bone is involved in a similar destruction, together with the cartilage lining the articulating surfaces, and the capsular ligament. Frequently at this time the head of the bone escapes from the acetabulum, and for the most part the displacement is backwards. The limb is shortened or apparently so (this is an important sign), and the foot everted.

In scrofulous subjects the brain or lungs often participate in the disease, tubercle being now deposited in these organs, or, if previously existing, giving rise at this time to conditions which manifest more particularly and often fatally its presence. Under these circumstances at one time, and owing, at others, to the general exhaustion produced by the excessive discharge of matter from the neighbourhood of the joint, the patient finally succumbs. These three stages, though generally well marked, are occasionally not to be made out, one condition gliding imperceptibly into another.

Of the different plans of treatment which have been proposed for this affection, and which are more or less efficacious

in promoting the ends desired, nearly all have in view the same objects. These must necessarily be, in the first place, to endeavour to remove the tuberculous disposition when it exists, as is the case in most instances. This is to be done by raising the standard of health; nourishing food and stimulants in moderation are very necessary for this purpose, and with them must be given the usual anti-scrofulous remedies, the chief of which are cod-liver oil and iodine. Frequent blisters and counter-irritation in other forms are to be used in the neighbourhood of the affected joint. The joint itself is to be kept at rest as much as is possible. We may observe, that it is a mistake to suppose that the joint is kept in a state of perfect rest by the application of splints and other apparatus around it. Every time the patient raises himself in bed, a certain degree of motion must be produced in the hip-joint; the body and the limb should be kept in a straight line in order to obviate this result; and, as it would involve so much inconvenience to the patient, this plan is seldom enforced. The solicitude of the patient himself to prevent all undue motion of the joint, such motion being productive of pain, is of some assistance in keeping it at rest.

Emma H., aged 12, was admitted into St. Mary's Hospital June 15, 1855, under the care of Mr. Coulson:—

She is the child of healthy parents, and resides at Sydenham. According to her own account she was quite well up to within eight months ago, and was able to run about as usual. She first felt pain in the left hip-joint, followed a few days after by inability to walk. The pain extended down the leg, but was seated chiefly in the knee and hip. Up to a month ago, she was able to get about with a stick, but since that time she has been confined to her bed. Since the disease has existed she has lost flesh rapidly, and is now thin and pale. She does not get much sleep; the appetite is pretty good.

On examination the following was found to be the condition of the patient:—She lies in bed on the right side, the lower limbs bent on the body, and the left more so than the right, the left leg and thigh resting on the other. This is the only position which is comfortable. She is unable to extend the left leg beyond a right angle. The thigh appears to be shortened; the buttock is flattened; the whole of the limb smaller than the right. The great trochanter is rounded, has lost its natural shape, and presents an enlargement extending over a considerable surface. Pressure at this situation is productive of pain.

The disease of the hip-joint, which had existed in this instance, had passed the first stage, and was either in the second, or between the second and third.

Mr. Coulson ordered a blister to be applied over the hip-joint, and three grains of mercury with chalk to be given every other night at bed-time.

June 19th.—The patient does not sleep well. Pain less on the whole. The blister to be repeated.

20th.—To take half a drachm of the syrup of the iodide of iron twice a-day.

July 5.—The swelling about the hip-joint has a little subsided. A third blister to be applied over the hip-joint.

The following day there was a little sickness with headache, the latter being situated about the frontal region. On inquiry it was found that there had been slight complaints of the same character for a few days previously. The iron was ordered to be given only once a-day.

14th.—A fourth blister applied.

23rd.—The headache has continued since the 6th with intermissions, but on some days it has not been felt at all. The child does not look well; there is no sickness now; no strabismus or convulsive movements. The bowels act tolerably well. Action of pupils sluggish, and they are rather widely dilated. As regards the state of the leg, there is certainly an improvement. The limb can now be extended more completely than was the case, and the motion produced in attempting it does not give rise to so much pain.

31st.—After the last report the head symptoms disappeared, and have not since been noticed. The swelling outside the hip-joint is less, extension of the leg more complete.

Aug. 25.—General improvement perceptible. The patient is now allowed to sit up, and she is able to walk, holding by the side of the bed.

Sept. 10.—The state of the hip-joint is now such as to allow of the patient's leaving the hospital. The joint is stiff, but the pain has almost all disappeared, and the condition of the child's general health, has been greatly altered for the better.

The headache, sickness, and other head symptoms which presented themselves at one time during the patient's stay in the hospital, occurring, as they did, in a child who evidently possessed a scrofulous tendency, was to be regarded with anxiety, as most probably indicating the deposition of tubercle in the meninges of the brain. This source of anxiety was, however, soon removed by the cessation of the headache and sickness, and the return of the child to her previous condition. At the time of her discharge it seemed likely that the improvement which had taken place as regarded the affection of the joint would be permanent.

NOTES AND QUERIES.

He that questioneth much shall learn much.—Bacon.

No. 118.—Treatment of Neuralgia.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—For about seven years I have been affected with a chronic neuralgia of my face, which has resisted arsenic, nitrate of silver, henbane, opium, and ferri subcarbonas. Therefore, if any of your readers would suggest a plan of treatment I should feel much obliged.

I am, &c. A Sufferer.

No. 119.—Treatment of Ruptured Perinæum.

Sir,—The treatment of ruptured perinæum is usually so uncertain and unsatisfactory, and the result so painful, both to patient and practitioner, frequently involving the latter in undeserved discredit, that perhaps, if not generally known in England, and I have seen no mention of it in your Journal, a few remarks on the mode of treatment here may not be unacceptable. It possesses two recommendations,—simplicity of application and a result invariably superior to that observed under the ordinary methods. I have myself witnessed several cases which have excited my surprise, as I have been taught to regard a ruptured perinæum as one of the greatest misfortunes that can happen in the practice of an obstetrician. For the last twelvemonth the serres fines of Vidal have superseded, at the Vienna Lying-in Hospital, all kinds of sutures or other mechanical means of approximation. They are applied as soon after the expulsion of the placenta as circumstances will permit, that is, where all bleeding has ceased, one, two, or three, according to the extent of laceration. Sometimes a slight preparatory paring of the lacerated edges of the wound may be necessary; they are allowed to remain eight or ten hours. After removal, the parts are kept cleansed, by allowing some tepid water to run over the wound two or three times a-day from a sponge: a *sine quâ non* is that the patient be kept on the side till the termination of the cure, to prevent the contact, as much as possible, of irritating discharges. In those cases which I have observed, union has supervened in from eight to twelve days; and some were severe, resulting from the forcible impaction of the fœtus, coupled with narrow vaginal outlet. If the serres fines are allowed to remain more than ten or twelve hours, they often produce the same ill effects as a suture: of course the patient's legs are kept in apposition and rest as much as possible. If you think this worth making public, it is quite at your service; it is far superior to any method of treatment I have yet seen or heard of. I am, &c.,

W. Wilson, M.D., L.C.P.L., M.R.C.S.E.

106, Alservorstadt, Vienna, August 10, 1856.

No. 120.—Microscopic Appearances in Urine.

Sir,—After eighteen months' constant application, I have completed a paper, which it was my ambition to hear read before the Royal Society; however, on placing it in the hands of two Fellows, on whose judgment I could rely, they immediately, without the least hesitation, advised me not to do so, as they considered that several of my observations were incorrect. When I asked their advice, I intended to take it, I therefore withhold my paper for a time, while I make further investigations, and prove my observations correct. In the mean time there is one observation at which they took the greatest objection, and upon which I should like to have the opinion of your readers, some of whom are tried microscopists—as it is a most beautiful experiment, and will well repay the time requisite for its consideration.

The degeneration and disintegration of Epithelium in Urine.—The urine to be examined should be as free as possible from salts, especially the urate of ammonia; the best urine is that of a healthy woman, as it contains more epithelium, and less of the crystallizable salts—obtained fresh, it should be placed in a phial, corked, and turned down so that the urine rests upon the cork. The epithelium will sink, and when required for observation, the cork should be withdrawn and rubbed upon the slide—having rested as above, about an hour. With a quarter or an eighth object glass, the epithelium is observed in different sized and shaped scales; some few are ovoid, with a distinct margin, and have a nucleus forming within it, nearly half the size of the cell; others are much larger, irregular shaped, with frequently the edge turned up—dog's-eared; these being much older are more suited for examination; the nucleus in these cells is small and oval, sometimes even shrivelled. The cell itself, when quite fresh, is transparent. Having observed the characteristics of the various epithelium scales, and drawn and noted down their description, the urine should be again examined in from twelve to twenty-four hours (I cannot state a fixed time, as different urine acts very differently upon the scales) when the scales are much more distinct; besides the central particles much molecular matter is scattered through the cell; this, by some, would be termed fatty degeneration; but I prefer to call it molecular disintegration; some of the larger, and therefore older scales, are breaking up at their edges, small masses of molecular matter floating off. Some few hours after the last observation, if a fresh drop of urine be taken from the cork, the scales are now seen to be wholly formed of a congeries of molecules. These, as they separate from one another, commence active vibration; after a short time, if one be carefully watched (for this is an exceedingly delicate observation), it may be seen to attach itself to another molecule also in active vibration; these two continue their motions, and add other molecules to either end, their activity increasing, wriggling backwards and forwards, and upon themselves; and a so-called vibrione is formed. If the urine from which these experiments have been made be kept a week, the whole will have disappeared, epithelium and vibriones, and nothing will be seen but millions of molecules in active vibration; the vibriones having separated into their component molecules.

I shall feel deeply obliged by any gentleman taking the trouble to investigate the truth of the above observations, and letting me know, either privately or through you, if you will permit it, the result they have arrived at. I may say, that the examination of the disintegration of epithelium in urine requires an eye practised to the study of molecular vibration; but in this case, there is very slight source of error, the only one likely being the crystallizing of urate of ammonia or phosphate of lime;—urine containing these salts in excess is not suitable for examination.

I am, &c. HARRY W. LOBB.

Gloucester-terrace, Hyde-park,
August 19, 1856.

No. 121.—CIVILIZATION AND HEALTH.

SIR,—I am collecting facts relating to the influence of civilization on the physical welfare of man, and shall be much obliged to any of your readers who can give me help in regard to the following questions:—

1. Are there any data in existence by which to obtain an approximative estimate of the average age to which Englishmen lived 500 years ago?

2. Where can facts be obtained from which to judge of the muscular strength, power of endurance, etc., of those of that, and more remote periods as compared with the present?

3. Where shall I find the best account of the great changes in dietary and domestic habits which have gradually taken place in England?

4. Can I obtain any reliable facts as to the ages usually attained by savages?

5. I recollect to have read an account of some festive occasion of recent date, at which an attempt was made by some English gentlemen to accoutre themselves in the armour (coats of mail, etc.) of olden time, and failed, on account of the articles being found to be all too small. Where was any account of this occurrence published?

For any other facts relating to this subject, and not directly referred to in my queries, I shall yet be much obliged. To save trouble, I may state, that I am well acquainted with Professor Marx's papers on this subject; they are, however, far too assumptive for my purposes. The questions are those which, to be usefully settled, require much more of reference to facts and statistics, than has, as far as I am aware, yet been attempted.

The insertion of this in your valuable "Notes and Queries," will oblige Yours, &c. E. H. A.

August 23, 1856.

No. 122—WALES AND CRETINISM.

SIR,—Can any of the readers of the Notes and Queries inform me whether cases of Cretinism are ever met with in any part of Wales? Also whether bronchocele is endemic in any district of that principality? I have recently made a short tour through some parts of North Wales, where, if anywhere, I should have expected to meet with these affections, but as far as I could learn (my observations were only very limited), I came to the conclusion that neither of the affections mentioned were in any degree prevalent. Wishing for more reliable information. I am, etc.

JONATHAN HUTCHINSON.

14, Finsbury Circus, August 23, 1856.

Medical Times & Gazette.

SATURDAY, AUGUST 30.

STATE VACCINATION.

IT must be admitted that, in many respects, Medicine can lay little claim to the title of an inductive science. Its operations are so much modified by idiosyncrasy, climate, age, sex, habit, and a host of other agencies, that the relations between cause and effect are not always apparent. No one can positively affirm that, by the most judicious treatment, a disease has been *cured;* it can only be asserted that the beneficial operations of nature have been promoted, instead of retarded, by a given course of therapeutics. If such must be admitted in the treatment of actual disease, it is yet more difficult to prove that by any known prophylactic measures disease may be *prevented.* It is true that, as Medical Practitioners and writers, we firmly believe that disease and death are diminished to an incalculable degree by the operation of hygienic principles; but it is not always easy to *prove* our position by strictly mathematical formulæ. It cannot be maintained with positive accuracy that any fifty persons afflicted with pneumonia might have remained healthy by adopting a peculiar mode of diet or regimen; nor that any other fifty, attacked with measles, might have avoided the contagion by resorting to any given means of prevention.

In the very nature of things, the origin, progress, and termination of diseases, are not amenable to the same laws as those which govern the inorganic world. The force of gravitation, for instance, is constant and universal; and so uniform is its operation, that it may be measured with accuracy and even foretold with certainty. The mutual attractions of the heavenly bodies, the rise and fall of the tides, the velocity of falling bodies, and other phenomena of a like kind, are altogether constant in their nature, and admit of scarcely any exception or variation; but it is far different with the laws which affect man, either as an individual or in society—for man himself, unlike the globe which he inhabits, or the sidereal system of which it is a part, is but the creature of an hour, and the perturbations of his microcosm are varied in a thousand ways, in accordance either with mysterious meteorological phenomena, or with his social, moral, or political position in relation to his fellow-creatures.

But if there be any fact in Medicine which is more clearly

established than another, and which rests on proofs which amount almost to mathematical certainty, that fact is the prophylactic influence of Vaccination in preventing Small-Pox. This great discovery, which may rank in importance with those of the theory of gravitation; and the circulation of the blood, was made after years of patient investigation, and the influence of time, which tests the truth of all discoveries, has added only more and more weight to the evidence formerly adduced by the illustrious Jenner.

The utility of Vaccination in preventing Small-Pox has, for many years, been an admitted fact among most persons of ordinary education and common experience. The dreadful loss of life from Small-pox, or, in case of recovery, the hideous disfigurement of those who had suffered from the disease, are matters comparatively unknown to the present generation; and although it is true, that, owing to defective sanitary legislation, the plague has not wholly disappeared from among us, yet few in the middle or upper classes of life have to lament the loss of relatives or friends from this dreadful pestilence, which is now chiefly confined in its ravages to the poor and ignorant, whose prejudices or whose carelessness have lost for them the boon which Vaccination offers for their acceptance. We blush to reflect that it is reserved for the British Parliament, in the nineteenth century, to call in question the merits of a discovery which has saved thousands from the grave, and to delay the introduction of an efficient system for extending the benefits of Vaccination throughout all ranks of the community. But perhaps we assert too much when we accuse the Legislature in general of this wanton neglect of the health of the people: it would be more correct to trace the opposition to Vaccination to a few noisy declaimers in the House of Commons, which seems, in this matter, to set at defiance the rules of evidence, and to receive implicitly any absurdity which ignorance or folly can invent and utter.

From the reckless assertions in which the House of Commons, or rather some of its half-witted members, are accustomed to indulge on the subject of Vaccination, it is refreshing to turn to the evidence of a gentleman who, by his long experience and his undoubted skill and veracity, is fully qualified to give a correct opinion. In the petition (which we print this day in another part of our journal), presented to the House of Commons during its late sitting, it will be observed that Mr. Marson, the petitioner, points out very clearly some of the reasons why Vaccination is not always successful as a prophylactic against Small-pox; and he also shows that during a residence of 20 years as Surgeon of the Small-pox and Vaccination Hospital, London, with an experience of 9000 cases of Small-pox and of 40,000 cases of Vaccination, he has never seen any evil results traceable to the latter operation. We write confidently "never;" because we consider the exceptions which Mr. Marson, with praiseworthy but almost unnecessary candour, has specified, are too trivial to require particular notice.

"I have never," says Mr. Marson, "seen other diseases communicated with the Vaccine disease, nor do I believe in the popular reports that they are so communicated. If such results were really true, as stated, and formed part of judiciously conducted Vaccination, they must have come under my observation in vaccinating 40,000 persons."

Now, here is a gentleman holding a responsible public office, who openly comes forward with valuable testimony, derived from extensive experience; yet his evidence is virtually set aside by the House of Commons, in favour of the baseless assertions of one or two prejudiced visionaries, who really seem, in matters relating to the public health, to be ignorant of the difference between truth and falsehood.

Mr. Marson's petition affords abundant scope for observation, into which our present limits preclude us from entering; but we recommend his calm and luminous statement to the careful perusal of the Profession, in the hope that they will be communicated by our brethren to such members of the Legislature, or to others, as may still retain some lingering doubts about the value of the discovery made by Jenner for the benefit of mankind.

THE WEEK.

Among the questions raised by the labours of the late Select Committee on Adulterations, not the least important are the condition of the Drug-trade, and the best means to adopt for its better regulation. Without imputing any blame to individuals exercising the business of Druggists, it must be generally admitted that the trade is in a most unsatisfactory state; and the consequence is, that medical men are without confidence in the efficacy of the medicines they prescribe, and the public are thereby exposed to great danger. The extended course of education enforced upon the General Practitioners by the Apothecaries' Act has made that class of the Profession eminently well qualified to test the purity of drugs; and hence the prevailing desire among the public to have their medicines supplied from the Surgery of their Medical attendant. But the Druggists who make up the prescriptions of the Physicians, and who take the place of the now effete Apothecary of the last century, together with the wholesale Druggists who supply the retailers, are under scarcely any *surveillance* at all; and the consequence is that, without any intentional dishonesty, but simply from want of education, the majority of those who deal in drugs are really unable to distinguish between a genuine and a spurious article. The College of Physicians of London, it is true, have and exercise the power of visiting the Druggists' shops to a limited extent; but as the functions of the College are confined to the Metropolis, it is evident that this superintendence cannot materially affect the trade. The Society of Apothecaries have the right of visiting the shops of Apothecaries; but as this class now rarely keep shops, and as the Society has no control whatever over the Druggists, the Act of 1815, in this respect, is almost a dead letter. It is to be hoped that, since public attention is now awakened to the subject, some steps will speedily be taken, on the part of the Legislature, to regulate the sale of drugs, and thus put an end to the present anomalous state of things, which has been proved to be so pernicious to the community.

The woman at Bolton, who poisoned her husband by the administration of small and repeated doses of tartar emetic, has been found guilty of manslaughter and sentenced to transportation for life. Neither the wretched convict herself, nor her murdered victim, can be made objects of much public commiseration, for they appear to have been a brutal couple, continually quarrelling and fighting, and both equally addicted to habitual intoxication. But, independently of the personal character of the parties, several points of importance arise from the details of the trial. It is proved in evidence that, in the town of Bolton, a common practice prevails for persons, half-grocers and half-druggists, to sell powders, ready-made up, consisting of cream of tartar and tartar emetic; which compound is called "quietness," and is employed by women to cure their husbands of drunkenness. It is needless to remark that such a practice should be immediately suppressed by the strong hand of the law. The case, however, is remarkable in another point of view, namely, from the rarity of fatal poisoning by tartar emetic. It is well-known in Medical practice, that very considerable doses of tartar emetic may be given, not only without injurious effects, but very often with great advantage; and it will be remembered that, when the mis-

creant Palmer was sent to trial by the Coroner's jury for poisoning his wife by this salt, considerable doubt was entertained whether the accusation could be sustained. In the case just concluded at Bolton, it seems to have been very clearly proved, that the deceased came to his death by the administration of antimony; and the result appeared due to the continual vomitings and consequent exhaustion attendant upon swallowing the poison, which was given to the deceased in all conceivable shapes, in his broth, in his gravy, in his porridge, in his tea, and even in his medicines. A similar mode of administration is supposed to have been employed by Palmer in poisoning his wife; and it may now be considered as an established fact that antimony in small and repeated doses is a fatal poison. Mr. H. H. Watson, who has favoured us with some particulars of the chemical evidence which he gave at the trial, discovered antimony in the urine of the deceased, in the liver, in one of the kidneys, and in the spleen; but he found none in the substance of the stomach, or in the colon, rectum, heart or lungs.

The banquet given, on the 20th inst., by the Medical Profession in France to their brethren in the Military and Naval Service, passed off with great enthusiasm and unanimity. More than four hundred Practitioners assembled from all parts of France to do honour to this great national festival, which was also attended by representatives from the Medical department of the British, Sardinian, and Turkish Armies. The dinner took place in the large covered court of the Hôtel du Louvre, and notwithstanding the great extent of the banqueting hall, it was necessary to prepare supplementary tables in the reception gallery. The Chair was taken by Baron Dubois, and he was supported by MM. Rayer, Bouillaud, Nélaton, Ricord, among the Civil Practitioners; and by M. Bégin, President of the Military Council of Health, MM. Michel Lévy, Baudens, Larrey, Scrive, among the Military guests; the Medical departments of the British Army and Navy were represented respectively by Sir John Hall and Mr. David Deas. The speeches were characterised by the eloquence and the animation for which our Gallic neighbours are distinguished; and the address of Sir John Hall though delivered in English, was received with loud applause. The idea of this great banquet, which has terminated so successfully, originated in the mind of a young Parisian Physician, M. Maheux; and the whole of the arrangements gave entire satisfaction to the numerous guests, and to their hospitable entertainers. The fact of so large a dinner having passed off, not only without *contretems*, but with undoubted *éclat*, is highly honourable to the Medical Profession in France, which has thus set an example, worthy of imitation, to our brethren in our own country. It would, indeed, be a gratifying sight to behold four hundred British Medical Practitioners assembled together for the purpose of evincing their cordiality and fraternization with their fellows.

A very important service has been rendered to the public, and especially to the poorer classes, by a Report on Diseased Meat, which has just been presented to the Metropolitan Association of the Medical Officers of Health. In this document it is stated that a large quantity of unwholesome and diseased meat is daily sold in the streets of London, and the Report clearly and ably points out, for the guidance of all whom it may concern, the marks by which unwholesome meat may be known. It is believed that most of the diseased meat is brought to London from the country, where several persons are engaged in the regular trade of slaughtering diseased animals for metropolitan consumption. This meat is exposed for sale in the low neighbourhoods, chiefly by gaslight; and much of it is converted into sausages. It appears that the flesh of horses is not much used, except the tongue, for human food, *simply because it fetches such a good price as cats' and dogs' meat*. The report specifies the several Acts of Parliament under which the vendors of unwholesome meat may be proceeded against and punished; and it is to be hoped that very vigorous steps will be taken to abate a nuisance by which the lower orders of society are both robbed of their money, and exposed to the attacks of disease.

The tranquillity of the town of Bedford has just been disturbed by a report that a house had burst forth into spontaneous combustion, which was quenched only after a very vigorous and repeated application of cold water. The matter was considered serious enough to justify the summoning of a Coroner's Jury, who examined several witnesses upon the facts, and called in some Medical gentlemen to give their opinions to account for the occurrence. The newspaper accounts are not very explanatory, and it is not easy to form a judgment from the published evidence; but it must be borne in mind that brimstone was lighted in one of the rooms a short time before the first discovery of fire, and that one of the children was allowed to play with lucifer-matches on the floor of the house. It is by no means improbable that the combustion may be explicable on the well-known laws of chemistry: that the brimstone, melted and ignited, may have run into the crevices in the floor, and continued for some time in a state of slow combustion, till at length, by heating the woodwork of the house, it ripened into flame, and burst forth at several points; thus giving rise to the phenomena, which, at first sight, certainly present to the mind something of the marvellous. That the fire, however, was of an extraordinary character, may be gathered from the fact that so acute a physician as Dr. Herbert Barker was not able wholly to explain the circumstances, which are certainly deserving of scientific investigation.

Great excitement has been caused in the neighbourhood of Hampton Court, by the mysterious death of a man who has lately returned from Australia, and who, previously to his death, was known to be in possession of a considerable sum of money. In consequence of the necessity for a further anatomical examination, the body has been exhumed, and several large swan-shots have been discovered in the left lung. As the deceased was proved to have been in a desponding state of mind, and lately to have become addicted to drink, the *primâ facie* view of the case would be that he had destroyed himself; but several circumstances are at variance with this supposition. No trace of any deadly weapon has been found near the body, and the opinion is gaining ground that a murder has been committed. The adjourned inquiry, which was to be held this week, will probably throw some light upon this very extraordinary transaction.

REVIEWS.

On the Fractures of Bones occurring in Gunshot Injuries. By Dr. L. Stromeyer. *On Resections in Gunshot Injuries.* By Dr. Friedrich Esmarch. *Cases of Resection in Civil Practice.* By S. F. Statham. Pp. 120. London. 1856.

If we compare the meagre political results of the Schleswig-Holstein campaign with the great scientific and practical additions to Surgery made by the two great German Surgeons who were successively at the head of the army of the duchies (Stromeyer and Langenbeck), we must acknowledge the truth of the saying, common on the Continent, that "Medical men were the only gainers by the contest;" though it would be more correct to substitute "science and humanity" for "Medical men." Having been acquainted, for some years, with the treatises of Stromeyer and Esmarch, and having also heard all the principal points connected with the surgery of

the war elucidated in the remarkable lectures of Professor Langenbeck himself, it becomes a most gratifying duty to direct general attention to the able translation before us.

Although it is to be regretted that it was not published at the commencement of the late war, its appearance is still singularly opportune, as it will suggest the institution of important comparisons with the results of our own military practice—results which we are happy to announce that the indefatigable head of our Army Medical Department is taking means to present to the Profession, in a worthy form, as the Report of a Committee of Investigation; which Report we have no doubt will prove a most valuable acquisition to modern science, and a lasting memorial of the skill, enterprize, and powers of observation displayed under the most adverse circumstances by the Surgeons of our army in the East.

It may be remembered that two of the most celebrated Surgeons of Germany, Stromeyer and Langenbeck, were called successively from their Professorial Chairs to act as Surgeons-in-Chief of the Schleswig-Holstein Army, just as in former days John Hunter was taken into our own Army Medical Service, and as in the late war Civil Surgeons of eminence were employed on special duties in the rear of our Eastern Army. The German Professors, ardently devoted to their Profession, at once re-opened their *Cliniques* in the field and general hospitals of the army. Numerous pupils, with equal devotion, flocked from all parts of Germany to rally around the scientific standard, and the results were worthy of their united efforts. We must refer our readers to the work before us, so abundant in valuable facts and observations, for anything like a complete knowledge or even a just appreciation of those results, but we cannot conclude without a short review of their character.

The conservative character of modern Surgery necessarily gave a tendency to the substitution of resection for amputation, a change which was hardly attempted in former wars, or even in the more modern campaigns in the Caucasus, in Hungary, or the revolutionary contests in Paris and Italy. In 1845, Baudens was the most modern writer on gunshot wounds; and he urged the necessity of making trial of resection in the continuity of bones after compound fracture. In the first Schleswig-Holstein campaign, numerous operations of this kind were performed by Professor Langenbeck, and almost always subcutaneously, or nearly so, with a long, narrow flexible saw. Experience, however, seems to show, that this operation should be limited to the removal of sharp and jagged extremities of bone, and the necrosed ends of fragments, where the periosteum, in its then thickened condition, can be detached and preserved. Stromeyer states that, from the collected results of three campaigns, it is his decided opinion that operative interference, in cases of compound comminuted fracture, must be restricted to the careful removal of those splinters only which are perfectly detached and within easy reach. Primary resection in the continuity of a bone can only be performed with a corresponding loss of periosteum, which leads to danger of non-union of the fragments, and exposure of the medullary canal to the influences of air and matter, and favours the development of pyæmia. We must remember, on the other hand, with what slight exfoliation fractures are united, in which no attempts have been made at the extraction of splinters. Even if attached to the periosteum they are easily detached by natural processes, the thickened periosteum remaining behind and forming new bone. All undue interference must therefore be eschewed. We cannot follow our authors further on this point, but must direct the attention of our readers to the invaluable remarks on the treatment and guidance of the suppurative discharge, on the pathology of congestive abscess, and on the obstruction of large veins by the pyæmic process, as a cause of secondary infiltrating hæmorrhage. Among the remarks on pyæmia our readers will remark some new and important observations, where this disease proved fatal after cases of amputation of the thigh, and the femoral vein, at its divided extremity, was thoroughly closed and filled with a firm clot up to the spot where the vein from the bone entered; but at this spot it became filled with pus, the bone itself being in a state of purulent myelitis.

The remarks on sequestra, and on the extent and direction of fissures of bone, nearly exhaust the subject. Stromeyer's lucid and condensed observations on the resection of joints after gunshot injuries are admirable, and with Esmarch's singularly complete and detailed treatise they illustrate this important subject in all its bearings; while with regard to the shoulder and elbow-joints they will leave but little for future authors to add.

The general introduction of the resection of joints into military practice is due to Professor Langenbeck, the illustrious Surgeon now occupying the Chair of Surgery in Berlin. The greater part of the observations in Esmarch's work are founded on Langenbeck's practice; but we must be content with referring to Mr. Statham's translation for details on this subject. They are fraught with deep interest to every scientific Surgeon. Any of our readers who may visit Berlin will regard with no common interest the beautiful collection of resected bones in the museum of Professor Langenbeck.

We take leave unwillingly of these very valuable books, and consider that an important service has been rendered to the Profession by their translation.

The Spas of Lisdoonvarna; with a Report and Analysis thereon. By James Apjohn, M.D., Professor of Chemistry, Trinity College, Dublin. Pp. 27. Dublin. 1856.

These Spas are situated in the County of Clare, Ireland, and are distant about three miles from the Atlantic Ocean. The analyses of Dr. Apjohn show that the springs are partly chalybeate and partly sulphureous, and that both kinds are highly charged with their respective medicinal properties. In the chalybeate springs the iron exists as a bicarbonate; and in the sulphureous waters there is a strong impregnation of sulphuretted hydrogen. Dr. Apjohn's well established reputation is a sufficient guarantee for the accuracy of the analyses, which are given at length.

On Cystic Entozoa in the Human Kidney. By T. Herbert Barker, M.D., F.R.C.S. Pamphlet. Pp. 18. London. 1856.

Dr. Barker relates a case that had occurred to him, and takes occasion to enter very fully into the history of these parasites. Dr. Barker quotes and concurs with the opinions of Dr. Allen Thomson and others, who regard the cystic entozoa as being simply the larvæ, or early states of the cestoid entozoa, to which order the common tape-worm belongs. The author is engaged experimentally, in the endeavour further to elucidate the origin of these organic forms in the bodies of man and animals. When his facts and conclusions shall be laid before the Profession, we doubt not that they will form a highly valuable contribution to natural history and pathology.

A Practical Treatise on Disorders of the Stomach with Fermentation, the Causes and Treatment of Indigestion, and on Diet, etc. By James Turnbull, M.D., Physician to the Liverpool Royal Infirmary, etc. London. 1856.

Dr. Turnbull's book contains a great deal which every member of the Profession is already satiated with, such as Liebig's views of digestion and fermentation, the composition of food, and so forth—matters with which the public, too, are pretty familiar, through the medium of Johnston and other popular writers. There is, besides, a fair account of the sarcina ventriculi, with three original cases in which the author has observed this morbid growth; but the treatment employed does not seem to have been particularly successful. The subject of the book being maladies connected with fermentation, it is not wonderful that the chief remedies recommended should be those which have the property of checking fermentation; and the author states that he has made many experiments on the properties of various substances in checking fermentation.

"I would direct attention," he says, "to one interesting fact, which seems now, for the first time, to be brought to light by my researches, and by the experiments noticed in the second chapter; viz., that many of the remedies which we find most effective in relieving pain at the stomach and stopping sickness and vomiting, are energetic anti-fermentative agents."

We really thought that this was no great novelty.

However, we may sum up our opinion of Dr. Turnbull's labours by saying that it contains a readable *résumé* of the commonly-received doctrines of the Profession on the subjects of which it treats; and that, if there are no new remedies proposed, at least the old ones have a new name given to them.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

A CASE OF SPONTANEOUS RUPTURE OF THE UTERUS.

By Dr. BERIGNY.

A girl, aged 23, about six or seven months gone in pregnancy, who seemed of robust constitution, and had never been ill, manifested, while in the House of Detention at Versailles, intense terror on hearing the cries of labour uttered by another prisoner. She was seized with vomiting, general chills, and syncope, which lasted about half-an-hour. The os uteri was quite closed. After she had recovered from the syncope, she continued very cold and prostrate, and in the evening she died. A thin, black, coagulum formed a membrane-like covering over the omentum and intestines, and other coagula were found among the intestines. A very large rupture was found at the posterior part of the uterus, near the *bas-fond*. The placenta was largely ruptured, and a fœtus of between five and six months was found near the opening of the cervix, at the posterior part of the organ, where the rupture had not extended to.—*Moniteur des Hôp.* 1856. No. 5.

ON THE EMPLOYMENT OF CHLORATE OF POTASS.

By M. ISAMBERT.

In this paper M. Isambert, after giving the history of the employment of the chlorate since its discovery by Berthollet, its disuse, and recent revival by Hunt and others, states that he has of late investigated its therapeutical action in M. Blache's wards, at the Children's Hospital; and its physiological effects by experiments upon himself. Passing over these latter, we briefly present the conclusions he has arrived at, in regard to its medicinal employment.

1. *Gangrene of the mouth.*—On carefully examining Mr. Hunt's observations, he considers it very doubtful whether he has always had to do with true gangrene of the mouth, having rather confounded this affection with ulcero-membranous stomatitis, in which the effects of the chlorate are truly remarkable. In two cases of gangrene he did not find it very serviceable; and West, who carefully distinguishes between the two affections, seems to have come to the same conclusion.

2. *Ulcero-membranous stomatitis.*—This term, adopted by Rilliet and Barthez, well explains the nature of the affection, there being, in fact, both ulceration and the formation of false membrane present, the one predominating in some cases, and *vice versâ*. It is a most obstinate affection, having no natural tendency to a cure, and being very liable to relapse. West first employed the chlorate in this affection, and his success with it has been amply confirmed by Blache, Herpin, Bergeron, and others on the Continent. Eight cases which have occurred to the author speak equally favourably. Relapse may, however, occur, though far seldomer than under any other remedy; and it should, therefore, be continued for some time after the fall of the false membrane. The chlorate, too, is powerless against the alveolo-dental pyorrhœa, or ulceration of the borders of the gum, with purulent issue from the alveoli on pressure being made upon the gum. The mean duration of treatment of these eight cases was from three to five days for the production of the fall of the membrane, and five to ten for a complete cure. When the cure was longer delayed relapse had occurred, or the alveolo-dental pyorrhœa was present.

3. *Aphtha.*—The vesiculo-ulcerative state of the buccal cavity, to which this appellation is now confined, is in general a very mild affection, and curable by simple means. Sometimes, however, numerous and confluent ulcers produce much pain, impede feeding, are very tedious in healing, and induce constitutional disturbance. In a case of this kind the chlorate effected a rapid cure.

4. *Muguet.*—M. Legroux has tried it in several cases of epidemic *muguet* at the Hôtel-Dieu, but without any favourable result. During the trials it was found to pass rapidly into the milk of the nurses, and in this way it may be administered to infants.

5. *Scorbutus.*—M. Fremy has found the medicine of use in this disease; and thus we find the moderns returning by another route to one of the first affections the chlorate was recommended for, on the theory of deoxidizing the salt in the economy.

6. *Diphtheritis.*—Observations commenced by M. Blache, and continued by the author, leave no doubt as to the utility of the chlorate. In this affection there is, however, every gradation from the most simple to the most malignant form, a sign of most unfavourable augury being found in the swelling of the parotid and deep-seated cervical glands—enlargement of the submaxillary glands occurring in even the simplest forms. Of 13 cases, the chlorate was exclusively employed in 4, and the cure was rapid, the cases being mild ones. In 2, although cauterization, with nitrate of silver, was employed at the beginning, the success was attributable to the chlorate. In 2 others, cauterization was simultaneously employed, but the cure was not more rapid than in the others. The 9th case was a very severe one following scarlatina, and the patient was cured by the chlorate and quinine, without the aid of cauterization. The four others died, but they were cases of a very grave description. The chlorate is therefore no heroic remedy, always curing angina maligna, nor is its action immediate; for, although it appears in the saliva a few minutes after administration, it requires at least twenty-four hours, and usually three or four days, before it can effect its purpose. It should, therefore, be commenced with early.

7. *Croup.*—The success attendant upon the chlorate in diphtheritis naturally led to its employment in croup. The author relates four cases in which the chlorate seemed to have succeeded, and refers to eleven others, in which tracheotomy was resorted to also, whether because the medicine did not seem to be taking effect with sufficient speed, or that tracheotomy having been already employed, it was given as an adjuvant to prevent the reproduction and extension of the diphtheritis. Of these eleven cases, some of which were very severe, there were eight recoveries and three deaths. Between the 1st of January and the end of March, 1856, tracheotomy was performed in M. Blache's wards fourteen times with nine recoveries and five deaths, all the children taking the chlorate either prior to or subsequent to the operation. If this success be not due to the occurrence of a run of lucky cases, which occasionally occurs in practice, the result is remarkable, as the proportion of recoveries after tracheotomy, at the same hospital, has averaged during the last six years but 1 in 4 to 1 in 5. When tracheotomy has been performed, the use of the chlorate is especially indicated when there is a tendency in the diphtheritis to extend to the bronchi, pharynx, or nasal passages. It should be combined with expectorants and considerable doses given.

Gazette Médicale, Nos. XXVI. to XXVIII.

CASE OF POISONING BY SALTPETRE.

By Dr. DEUTSCH.

H. W., a robust man, 30 years of age, suffered from severe acute articular rheumatism, accompanied with endocarditis. He had, during three days, been taking ʒ½ nitr. potass. in the twenty-four hours, and the quantity was now increased to ʒvi. The mixture having been rendered agreeable in taste by the addition of syrup, the patient drank twelve doses off at once. He immediately became insensible, and his hitherto red and turgid face became pale and collapsed as in cholera. The skin was of a marble coldness, the pulse slow, small, and feeble, as was also the respiration. An ipecacuanha emetic restored his power of speech, and he complained of dreadful burning pains in the fauces and abdomen, bloody stools and urine being also passed. There was much tremor, and slight convulsions, which, together with hallucinations of the senses, and a partial paralysis of muscular action, indicated the nervous operation of the poisonous substance. Free local bleeding, anodyne cataplasms, and abundant drinks and enemata of milk and linseed-tea, were directed against the inflammatory action, while the great depression and other nervous symptoms were met with camphor and ether. Although dangerous symptoms were thus dissipated, the patient long suffered from derangement of the digestive and urinary organs, and complained of a peculiar feeling of coldness in the hands and feet, and down the back.

Berlin Med. Zeitung. 1855. No. XLIX.

EXCERPTA MINORA.

Tight Cravats.—M. Serres calls attention to the ill effects that may be produced by wearing too-tight cravats, the constriction of which, from force of habit, is not perceived. The

pathognomonic sign of the ill effects produced is a quasi-varicose swelling of the frontal veins, and of the jugular veins behind the angle of the lower jaw. There is also turgescence of the capillary system of the face, which subsides on loosening the cravat. Various secondary effects result from this compression that the patient can never suspect the cause of until this is pointed out to him. These are general *malaise*, feebleness of the limbs, impeded respiration, pain in the heart, difficult digestion, constipation, emaciation, vertigo, etc.—*Bull. de Therap.* Tome L., p. 123.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

Paris, August 4, 1856.

The banquet given by the French Physicians to those of their brethren who have been in the Crimea, passed off very pleasantly to all but those who would have liked, but were not able, to display their oratorical powers. The speech of Sir John Hall, translated by Baron Paul Dubois, was received with enthusiasm.

The excitement caused by the banquet has not prevented the medical public from giving great attention to some very important communications by MM. Bouley, Jobert de Lamballe and others, at the Académie de Médecine. It is well known that a number of our notions about many poisons, rest, at least in part, upon experiments made by Orfila, in which this eminent toxicologist had tied the œsophagus of dogs, to prevent vomiting, after having injected into the stomach the substances suspected to be poisons. The results of the experiments of Orfila would have but little value, if it were proved that the ligature of the œsophagus alone could produce many of the effects he attributed to poisons, or rather to substances considered as poisons. According to MM. Bouley and Reynal, Professors at the Veterinary School at Alfort, this supposition seems to be the truth. Some time ago, M. Reynal discovered that brine is a violent poison at certain doses. One of his colleagues at Alfort, Professor Goubaux, published recently a paper, in which he says, that common salt is also a poison, and that the tonic powers of brine are mostly due to the common salt it contains. M. Goubaux went so far as to say, that even a dose of 40 grammes (one ounce and a third) of common salt is sufficient to kill a dog. MM. Reynal and Bouley, on the contrary, have ascertained that even 100 grammes of salt may be given, at one meal, to a dog, without any deleterious effect. In searching what could be the cause of the differences between their experiments and those of M. Goubaux, they found that it was in the mode of experimenting. M. Goubaux used to put a ligature round the œsophagus, after having given the salt to his dogs, and MM. Bouley and Reynal did not employ this means. In examining what would be the effects produced by the application of a ligature round the œsophagus in healthy dogs, they found that frequently this operation caused death. Already, Giacomini, Devergie, and Rognetta, criticising Orfila, had said that the ligature of the œsophagus was a serious operation, and that the great toxicologist had often attributed to poisons, symptoms produced by this operation. Orfila had answered with his customary violence; and he was so positive in his affirmations that the ligature of the trachea is an innocent operation, that the public had admitted his assertion. The experiments of MM. Bouley and Reynal seem to leave no room to doubt; they show that various symptoms, some of them very serious, are frequently the result of the mere tying of the œsophagus. In their first paper they state that, out of eight dogs upon which they had performed this operation, five died in from two to seventy-two hours. Of the three dogs that survived the operation, one only recovered quickly after the removal of the ligature, which had been left two hours; of the two others, one was ill four days, and the other eight days. In another series of experiments, in which a small quantity of common salt or of emetics had been injected into the stomach, before the application of the ligature round the œsophagus, the efforts of vomiting were very great, and death ensued very soon in six dogs out of seven.

In a second paper, MM. Bouley and Reynal have tried to show how much Orfila was misled by his mode of operating. According to this eminent toxicologist, 3 grammes (2 scruples) of subnitrate of bismuth are sufficient to kill a dog. This seems to be true if, after having given such a dose of this substance to a dog, the œsophagus is tied; but, if it is left free, this dose has no bad influence whatever, as might be expected by Practitioners, who give daily much larger doses of this substance, and by those who know that Prof. Trousseau often gives at once 30 grammes (1 ounce) of this medicine, and that M. Monneret gives 30 grammes of it. According to Orfila the nitrate of potash is a poison in the dose of 4 grammes (3 scruples), and so it is with the sulphate of copper in the dose of 2 grammes (36 grains). True it is that these doses of these substances kill dogs, when their œsophagus is tied, but they do not affect them much if this canal is not tied, or if the ligature is left only a short time.

According to MM. Bouley and Reynal the ligature of the œsophagus causes death by exciting prolonged and energetic efforts of vomiting. Sometimes, particularly when the stomach contains much food or water, the efforts of vomiting are constant, and then death occurs quicker.

The friends of Orfila in the Académie de Médecine have been greatly moved on hearing the communications of MM. Bouley and Reynal. Some of them had seen him experimenting, and had been his assistants; they said that the ligature of the œsophagus is not by far so dangerous an operation as MM. Bouley and Reynal represent it to be. They felt inclined to suppose that MM. Bouley and Reynal tied some nerves together with the œsophagus.

M. Renault said that he witnessed the experiments of MM. Bouley and Reynal, and he is satisfied that all they state is right. As regards an injury to the par vagum, this cannot be considered as the cause of the death of the animals experimented upon by MM. Bouley and Reynal, as the autopsy has showed there was no such thing.

Many experimenters read papers on this subject at the last meetings of the Academy. Prof. Jobert de Lamballe, gave the results of two series of experiments, which he thinks to be in opposition with the conclusions of MM. Bouley and Reynal. But they seem, on the contrary, to be in accordance with these conclusions, as about one-half of the animals experimented upon died in a few days, and almost all the animals made efforts at vomiting.

M. Orfila, a nephew of the great Toxicologist, has related some experiments, which, according to him, are in opposition with the conclusions of MM. Bouley and Reynal; but here also we find that two dogs died in about eight days after the operation.

M. Colin has also read a paper, in which he tries to show that MM. Bouley and Reynal have been completely mistaken. Only one of the animals he experimented upon died some time after the operation.

As MM. Bouley and Reynal are very able experimenters, and, in every respect, to be relied upon, we think that the conclusions they have arrived at must be received as grounded upon fact. However, we shall be soon more enlightened on this subject, as MM. Bégin, Jobert, Trousseau, Renault, and Bouley, have been appointed a Committee to investigate the matter, and report upon it.

There has been a well-marked case of bronzed skin, with disease of the supra-renal capsules, in the Hôtel-Dieu, in the wards of Professor Trousseau. A report of the case will be made to-morrow at the Académie de Médecine.

Monday last Professor Cl. Bernard read a very important paper at the Académie des Sciences, upon the difficult subject of animal heat. The principal result he has arrived at is, that the liver must be looked upon as one of the places where the greatest amount of heat is produced.

MEDICINE IN SWEDEN.

TRANSACTIONS OF THE SWEDISH SOCIETY OF PHYSICIANS.

(Continued from Vol. XXXIII., page 195.

Herr Bonsdorff stated, that he had often observed cardialgia to alternate with attacks of intercostal neuralgia, and that in such cases the remedies ordinarily employed in the former affection were unavailing. He had himself had under his

care many cases of intercostal neuralgia, which were all characterized by a remarkable enlargement of the spleen, with tenderness of the spine both on pressure and on the application of a sponge dipped in hot water. In these cases he had with advantage employed a combination of quina, iodide of potassium, and extract of aconite; and, under its use, had observed a decided change in the volume of the spleen, as was shown on percussion, in connexion with which fact he referred to Ecker's and Kölliker's discovery, that the viscus alluded to contains a considerable number of organic muscular fibres, not merely in its proper tunic, but also in the fibrous cords which pass from this into its very substance, and that it consequently, in some respects, resembles a muscle, and possesses a contractile power; while experimenters have also succeeded in producing contractions in it by the application of galvanism shortly after death. The author made some observations as to how far the above-mentioned changes in the volume of the spleen were attributable to the use of the quina, and as to the question, whether the efficacy of this remedy in intermittent fevers might not be explained by its action on this organ. He had also found a combination of sulphate of quina and iodide of potassium to have a surprisingly good effect in some cases of neuralgia of the facial nerve.

Herr Malmsten observed, that attacks of gastrodynia are, in Sweden, often complicated with intercostal neuralgia, and also remarked how difficult it sometimes is to make a differential diagnosis between chronic gastritis and cardialgia; which affections, moreover, often occur together. As to the combination of sulphate of quina and iodide of potassium alluded to, he had employed it in cases of neuralgia of the uterus complicated with engorgement of the organ. The efficacy of the salt of quina in small doses, in cases in which an enlargement of the spleen remains after an attack of intermittent, had often been established. How it acts in ague is certainly difficult to decide; but if, without entering into the question as to how far this affection depends on a disturbance in the spinal marrow or in the sympathetic nerve, we attribute it to an alteration in the blood caused by marsh malaria or some unknown miasm, Herr Malmsten believed the action of the salt to be to counteract this alteration. He had not investigated the condition of the spleen in cardialgia; but he would remind his hearers of the swelling of the epigastrium, which is so common in these affections, and depends on an excessive development of gas in the stomach, which becomes distended, causing the patient to complain at times during the day of the pressure of his clothes. He had often employed the salt of quina in neuralgia, and would take the first opportunity which should offer of trying whether it is rendered more efficacious by union with iodide of potassium.

Herr Blachet exhibited a gold plate with three artificial teeth, which a lady had swallowed in the beginning of May, 1851, and had passed per anum, without any particular inconvenience, only on Friday last, consequently after the lapse of one year and seven months.

Herr Abelin mentioned the following case:—A boy, aged 12, was brought back about two years ago by his foster-parents in Ostergöthland, to the great Orphan house, after having suffered for a year and a-half from ague. He was then taken into the infirmary, from which he was not discharged until last spring. He had at the time of his dismissal considerable hypertrophy of the spleen still remaining. A couple of months ago he was again admitted with diarrhœa and vomiting. He became, at times, better, but still suffered occasionally from the symptoms just mentioned. The alvine discharges contained blood and pus. Last Saturday afternoon he was attacked with slight vomiting, and on the following night with pain in the right ear; next morning his right arm was paralyzed. There was ptosis of the right eyelid, and he had lost the power of speech. Intercranial hæmorrhage was suspected, but no trace of such an occurrence could be discovered on post-mortem examination, which disclosed a spleno-peritonitis, the kidneys infiltrated with a tubercular-looking mass, the follicles of the large intestine swollen, some of them burst, others still whole, and containing pus, tubercular infiltration of the right lung, and a small cavity in its apex, and tubercular depositions on the liver and large intestine.

Herr A. Retzius was of opinion that the disease was one of the blood, and referred to Bennet's investigations, according to which, in diseases of the spleen, a great excess of white blood corpuscles is generated, which, under the microscope, cannot be distinguished from pus.

Herr A. Retzius exhibited, on the part of Herr V. Betzen, who had not time to remain to the close of the meeting, a human monstrosity which wanted one arm, and in which both lower extremities had grown together; and promised, at a future time, to give a fuller account of the case.

Herr Lamm mentioned, in reference to this subject, that he had seen, in Professor Kilian's private pathological collection in Bonn, a female athoracic fœtus, in which spontaneous amputation, which had, in the specimen shown by Herr Retzius, taken away only an arm, had divided the body between the fourth and fifth dorsal vertebræ. Of the upper part of the body of the fœtus it would appear that no trace could be discovered at birth, probably in consequence of the spontaneous amputation occurring at a very early period of pregnancy, so that the amputated part had been wholly or almost entirely absorbed, or had, perhaps, been expelled with the waters or with the placenta, and, from its minuteness, escaped observation. The lower or remaining part of the fœtus was about six inches long, was covered with normal skin; the surface of separation was formed of skin, partly in a normal and partly in a cicatrized condition. A portion of the funis was found remaining on the preparation attached to the usual point of insertion. The external organs of generation, the thighs, and legs appeared to be well formed. The feet were clubbed (talipedes vari), each wanting one or other of the toes.

It was stated that the mother had been confined in the seventh month of her pregnancy, shortly after a fall from a carriage, and that she said she still felt the movements of the child the day before her delivery, but that these had always been weak. It would seem that the fœtus had shown no trace of life after birth. The placenta was small, but its substance was in a healthy state. A drawing of this preparation is to be found in an inaugural dissertation published at Bonn in 1848, by Hermann Terstesse, entitled *De Funiculi Umbilicalis Circumvolutione*, etc. The cases of spontaneous amputation which most commonly occur relate to the extremities, the thighs, arms, legs, feet, or hands, and especially the fingers and toes. In some of these cases the separated part has been found, in others it has been lost. Most frequently the amputation has been incomplete, the part being found indented in some particular place down to the bone, as if by a loop, leaving the bone at the point of ligature covered only by the skin. This circumstance, together with the fact that the skin covering the surface of separation of the truncated limb has never been found discoloured, completely refutes the assertion of some writers, that gangrene is the original cause of the mutilation. Post-mortem examinations have now demonstrated that the ligature is sometimes formed by the funis itself, sometimes by one or more accidental filaments, and that it is, probably, by the part of the fœtus turning round on itself that the ligature is tightened. These filaments are considered by some authors, especially Gurlt, to be original prolongations of the amnion; by others, on the contrary, they are looked upon as threads of coagulable lymph, formed in consequence of a morbid process. What formed the ligature in Professor Kilian's preparation has not been explained. It is, however, not possible that gangrene could have been the cause of the mutilation.

GENERAL CORRESPONDENCE.

ON THE EMPLOYMENT OF CONGELATION IN OPERATIONS ON THE MOUTH.

[To the Editor of the Medical Times and Gazette.]

Sir,—Mr. Field, in his report of a successful case of staphyloraphy, in the last Number of your Journal, makes the following observation:—

"I tried, with the assistance of some Medical friends, to produce congelation of the palate by means of salt and pounded ice; but in this we totally failed, even after more than an hour's perseverance. Our failure is to be accounted for, I suppose, by the high temperature of the parts and the current of warm air through the mouth and nose, to both of which the freezing mixture would be exposed."

From this it might be inferred that congelation is ineffectual for operations about the cavity of the mouth,—an inference

which my daily practice shows to be erroneous. No surface of the human body, with which extreme cold can be brought in contact can, so far as I can conceive, resist its benumbing effects, even for a few minutes, provided it be efficiently conducted; and, though there may be greater difficulties to surmount in applying cold to the mouth than to other surfaces of the body, yet its tissues will as certainly succumb to its anæsthetic influence as other parts.

To succeed in producing an efficient anæsthetic effect, the form and degree in which the cold is employed must be adapted to the part to be operated upon. That form, for example, which would be eminently successful for an operation on the external surface of the body, might be, and is, most inappropriate for operations in a cavity like the mouth. The failure, in the above instance, was unquestionably the result of a defective method of applying the cold. It is obvious that only a very small quantity of pounded ice and salt, or of any other freezing mixture, could be placed within the mouth,—a quantity far too small to remain at the low degree of temperature necessary to produce insensibility of the tissue. Moreover, in applying solid ice and salt to the upper surface of the mouth, the coldest portion would necessarily gravitate, leaving only ice to be thawed by the warm palate.

Considerable experience in the application of cold in operations on the mouth has shown me that, First, the cold should be applied in a fluid or semi-fluid form, accompanied with pressure. By this means it can be applied equally to every portion of the required surface. Secondly, such cold fluid should be subject to repeated or uninterrupted change; otherwise the heat absorbed from the mouth would raise its temperature, and thus counteract the anæsthetic effect. Thirdly, the fluid should be of sufficiently low temperature to produce an anæsthetic result, adequate to the nature and severity of the operation. Fourthly, it should be enclosed in a very fine preparation of india-rubber, or thin membrane, which, without interfering with its efficacy, would prevent the ingredients escaping and irritating the mouth. The employment of india-rubber, at my suggestion, has been found most serviceable in the application of cold generally, especially when the surface is abraded, and in cases of cancer, etc.

There are several ways in which an unalterably low temperature may be continuously applied to the mouth. A body of water, cooled down by ice and salt to zero, or by the addition of nitrate of ammonia and other salts to almost any degree below zero, may be passed in a continuous current over the part, through a delicate membrane moulding itself by the pressure of the fluid to the form of the surface. A current of cold, either direct or graduated, is not, however, indispensable to operations on the mouth, as has been supposed.

The desired anæsthetic effect may be gained by enclosing a cold and easily soluble freezing mixture in a vessel having a tube, the terminal portion of which may be adapted extempore to the nature of any case; the exposed portion being covered with thin india-rubber or membrane and applied to the part. It is only necessary to subject the contained fluid to occasional change and admixture to maintain or produce any degree of cold that may be desirable. I have contrived a small apparatus of the latter kind, the more minute description of which I reserve for a future opportunity, when I can illustrate it by a diagram. By a few minutes' application of either of these processes a perfectly successful anæsthesia may be obtained. The current process having been made the subject of a patent is unfortunately unavailable to the Medical Profession generally.

I have not had an opportunity of employing congelation in a case of staphyloraphy, but I have frequently had occasion to freeze large portions of the palate, and I have always accomplished it with the greatest ease. And the success I have met with in removing teeth, exfoliations, etc., of which Dr. Arnott, Dr. Druitt, and others have been witnesses, places the possibility of successfully employing a properly-managed congelation in operations on the mouth beyond a doubt.

I am, &c. J. R. Quinton.

18, Orchard-street, Portman-square,
August 25, 1856.

Kent County and Ophthalmic Hospital.—The Right Hon. Thomas Pemberton Leigh has given a donation of £100 for the extension of this Hospital, by building additional wards for children.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

Monday, August 4, 1856.

Dr. Babington, President, in the Chair.

The President read a paper

ON CHOLERA WHICH VISITED HER MAJESTY'S BLACK SEA FLEET IN THE AUTUMN OF 1854,

COMPILED FROM THE RETURNS OF THE MEDICAL OFFICERS OF THE FLEET, TO QUERIES DRAWN UP BY THE CHOLERA COMMITTEE OF THE EPIDEMIOLOGICAL SOCIETY, AND SENT OUT BY ORDER OF THE GOVERNMENT.

Dr. Babington commenced by observing that the Medical Officers of the Navy were, from the double examinations which they had all passed through, first under the general Professional authorities of the empire, and then under the authorities connected with the service, well qualified to answer inquiries; and the more so, from their isolated positions and probable freedom from preconceived theories. The superior opportunities of observing disease at its onset, and of having the habits, occupations, diet, etc. of the ship's crew, were pointed out, as, also, the advantage of being able to trace all particulars regarding first cases. The great facility which a ship possessed of being able to move from place to place was particularly dwelt on, after which the writer proceeded to enumerate the ships in the Black Sea Fleet, twenty-five in number, in which cholera occurred, also those, three in number, in which diarrhœa also occurred, and, finally, those in which there was neither cholera nor diarrhœa. He then read the queries which the Cholera Committee had circulated to the fleet, and explained an elaborate table which he had drawn up, of all those circumstances in the answers to those queries which admitted of tabulation. He next took into consideration those subjects in the queries which did not admit of tabulation; the first being the question, as to whether the crews of boats communicating with the shore suffered more, and at an earlier period, than the men who were confined to the ship. A summary of the answers showed that, in seven ships, those persons having communication with the shore were first affected with the disease; and that, in 14 ships, the disease did not appear first in those who were in communication with the shore, while in the remaining ships there was no evidence either one way or the other. To the question regarding the number, if any, of cases without premonitory symptoms, a summary of the answers showed that out of 711 attacks of cholera reported in the Black Sea fleet there were without premonitory symptoms 134 cases, or more than one in six. The following is a summary of the opinions of the Medical Officers:—1. On the chief predisposing and exciting causes of the outbreak; 2. On the comparative immunity of certain of the ships; 3. On the treatment of the disease; and 4. On the best preventive measures. The question regarding predisposing causes is answered by the Medical men of 15 ships only, and their opinions are all comprised under one or other of the following heads:—Exposure to sudden changes of heat, cold and moisture, and to night air; bad food and clothing; intemperance; the immoderate use of fruit and vegetables; or the use of unripe fruit or decayed vegetables; the drinking cold water when hot; over-fatigue; crowding; bad ventilation; the use of impure water; finally, diarrhœa, as a consequence of the foregoing causes whether singly or in combination. With respect to the exciting cause, the question is answered by the Medical men of 16 ships only. Of these, 10 consider it to have been atmospheric influence; 1 considers the poison to have been atmospheric, but that it was rendered contagious by evacuations from the sick, and by foul air; while the remaining 5, without mentioning the term, evidently lean to the side of contagion. The question regarding the cause of comparative immunity, received answers from the Medical men of 16 ships, who attribute it to the shifting of locality; to cleanliness, dryness, and thorough ventilation; to keeping the men out of the sun and fully occupying them; to their excellent health and regular habits, and their non-communication with the shore; to the free use of chloride of zinc; to the use of quinine wine as a preventive; to the avoidance of unripe fruit, and the early treatment of diarrhœa. On the subject of treatment there are answers from all those

ships which were visited by either cholera or diarrhœa, but there were twelve which escaped altogether. It seems to have been a very frequent practice to commence with a large dose of calomel and opium, and to proceed with small doses at frequent intervals. In at least eighteen of the ships calomel seems to have been the leading medicine. Stimulants, both internal and external, were much used. Dr. Billing's plan, by oft-repeated small doses of tartar-emetic, is extolled by one gentleman, and Dr. Stevens' saline plan by another; but no such amount of success seems to have followed any mode of treatment as to recommend it emphatically beyond the rest; the only novelty noticed is the application of numerous cupping-glasses over the limbs and body, which, in one ship, is said to have had a good effect in restoring warmth and preventing cramp. The suggestions offered with regard to prophylaxis, admit of division into those which respect the ship, and those which respect the men. As to the former, the chief recommendations are cleanliness, ventilation, fumigation, and white-washing, dryness, the free use of chloride of zinc, and a shifting of locality. In one instance it is suggested that in steam-ships the bilges should be lined with metal, to prevent the absorption of grease, and that they should be flushed with alkaline hot water, previously to purification by chloride of zinc. The preventive measures as applicable to the men are, a generous diet, with fresh provisions when procurable, recreation, amusements, comforts, warm clothing, including the use of flannel, especially about the abdomen, the use of quinine wine, a strict surveillance and immediate attention to diarrhœa, the serving out of tea and coffee before going on deck in the early morning, a supply of clean bedding, well aired, the prevention of intercourse with any ship or locality where cholera exists, abstinence from unripe fruits, from excesses of all kinds, from exposure to night-air, wet, hot sun, or the early morning air without food, the avoidance of fatigue, especially in the sun, and of exposure to sudden chills, or to long fasting. Returns were received from seven Baltic ships, which, having subsequently joined the Black Sea fleet, received the queries there. Some opportunity of forming a comparison, though an imperfect one, was thus afforded. Dr. Babington, in concluding his report, made a few remarks on it, of which the following is a short abstract:—The most startling fact it contained he considered to be the great disproportion between the number of attacks of cholera among the officers and those among the men. Out of 884 officers in the Black Sea fleet, there were but five who had the disease, and of these one was a gunner, and one a boatswain, whose habits, probably, assimilated more to those of foremast-men, than of quarter-deck officers. There were in the Black Sea 11,488 seamen, among whom there occurred 705 attacks. These numbers give a proportion of 1 to 177 in the case of the officers, and 1 to 16·3 among the seamen. In the Baltic, where in the ships which sent reports there were 183 officers and 1841 seamen, there was a perfect immunity from cholera among the former, and 49 attacks, or 1 in 37·57 among the latter. Dr. Babington thought this fact chiefly owing to a difference in the predisposing, and, in a great measure, preventible causes. Among the men in the Black Sea Fleet the proportion of deaths to attacks was 1 to 1·8, and, in the Baltic, as 1 to 2·88. Comparing the seamen with the marines, it was found that in the Black Sea the attacks of the marines, who in numbers bore a proportion of 1 marine to 38 sailors, was 1 to 12, and the proportion of deaths to attacks as 1 to 1·6, the disease being therefore somewhat more fatal among them, and notably more frequent than among the seamen. In the Baltic, on the contrary, where the proportion of marines to seamen was nearly the same, the number of attacks among the former was only 1 in 42·6, and there was only 1 death, or 1 in 384. Of all the suggestions as to preventive measures Dr. Babington thought that which recommends a shifting of locality the most valuable, which proved successful in several instances. The report concluded with an apology for its length, which was unavoidable, if justice were to be done to the subject, and to those meritorious Medical Officers who had, with so much courtesy, furnished the materials.

Dr. Milroy remarked, that the paper which had just been read by their excellent President not only contained much valuable information, but was also suggestive of some important points of inquiry bearing on the health of our ships of war. One of these was the remarkable immunity of the officers, as compared with the men, from attacks of cholera in those vessels of the Black Sea fleet which had suffered the most. He was not surprised at this himself, and in his opinion the cause was sufficiently obvious, viz. the much larger amount of breathing space in the quarters of the former, more especially at night, when the necessity for pure air is even greater than during the day. His attention had been long drawn to this subject, and his recent visit to the East had given him a good opportunity of making further inquiries and observations upon it. He had carefully gone over the *Royal Albert* and the *Queen*, the admirals' ships at Kameisch and the Bosphorus, in company with the Medical Officers, in the latter case with Dr. Deas, the Inspector-General of the Fleet, whose views, he was glad to find, entirely concurred with his own on most points connected with the sleeping accommodation for the crews. Take the case of a three-decker with 1000 or 1200 men on board. More than two-thirds of them are stowed away on the lower deck, which is necessarily the worst ventilated, while the rest, consisting chiefly of the marines and boys, are berthed in part of the middle-deck. The whole of the upper-deck and one-half of the middle-deck are left quite free and unoccupied. There was no good reason why so much space should not be made available for the comfort and the health of the men at night, and he trusted that ere long it would be made use of at all times. He had spoken, not only with the Medical Officers, but also with the captains and lieutenants on this subject, and he had found that it was only because it had been always the practice in the service, that no change was made, for all admitted that the atmosphere in the between-decks, after the men had turned into their hammocks, was most disgusting. Such being the case, could we wonder that diseases like cholera and yellow-fever sometimes prevailed to a frightful extent in vessels of war? The history of the terrible outbreak in the *Britannia* at Varna, in 1854, was a melancholy example. All the ports of the lower deck had been shut, in consequence of the weather becoming stormy, and the result was, that the air which the men breathed was positively pestiferous. The ventilation of the between-decks in all ships might be much improved, and by very simple means when the ship was being built; but, unfortunately, little or no attention was paid to this point by shipwrights, and everything was sacrificed, either to mere appearance, or the working of the guns, or the stowing away of the stores or cargo. In closing his remark he would offer one practical hint which he believed to be of great importance, viz., that whenever a ship of war happened to be in or to arrive at a place where any epidemic disease existed, the crew should immediately be spread over all the available space in the different decks. In some cases, as when the vessel is lying in port, it may even be advisable to have some of the crew to sleep on the spar-deck under an awning, disease would then be often prevented altogether, and at all events be very materially diminished. No other sanitary appliance could be of much avail, if the free and abundant supply of fresh air to the men at night was not attended to.

Dr. Snow alluded to an account given some time since in the *Medical Times and Gazette*, stating that the great outbreak in the Black Sea took place on the 8th, 9th, and 10th of August, and that many of the ships received their water from a stream in which the French, on their return from an encounter with the Russians, and suffering severely from cholera, had washed their linen, etc., on the 7th and 8th. He had hoped that some additional light would have been thrown on the subject by the returns. With regard to ventilation, the *Britannia* was not so much crowded as some other ships, and the port-holes were probably closed in all. Much of the foulness of the atmosphere on board the *Britannia* was probably produced by the disease itself. If it were true that the cholera poison was conveyed by the water, the comparative exemption of the officers could be readily accounted for; as they would not be so likely to drink cold water as the men, not being so heated by exercise, and having other beverages at hand.

Dr. Tripe alluded to the stagnant condition of the air usually preceding the outbreaks of cholera, there being but little variation between the state of the thermometer at night and in the day; adding, that where the variation was the smallest, the outbreak was the most severe. He alluded also to the cholera most often observed on such occasions, and to other

circumstances supposed to be connected with the prevalence of the disease.

Dr. Jeannerett thought some comparison ought to be made of the circumstance under which cholera spreads at sea and on land. One of the most singular phenomena connected with the disease was the rapidity with which patients occasionally recovered (sometimes in a few minutes), notwithstanding the depressing influences to which they had been subjected.

Colonel Sykes adverted to the varying and often diametrically opposite circumstances under which cholera appeared, and the consequent difficulty of arriving at correct conclusions.

Dr. Greenhow stated that, according to an account published by the Admiralty, when the *Britannia* put out to sea, the severity of the outbreak decreased; and that it was not till the port-holes were closed that the atmosphere became pestiferous, which was partly due to the excretions of the patients.

Mr. Tucker cautioned the Society from inferring from certain parts of the paper that fermented cider was other than a good prophylactic in cases of cholera.

The Society then adjourned to November.

CRIMEAN MEDICAL AND SURGICAL SOCIETY.

April 19, 1856.

Sir John Hall, M.D., K.C.B., in the Chair.

The proceedings of the last meeting having been read by the Secretary, Dr. Mouat, C.B., Deputy Inspector-General, made the following observations on some points connected with the use of chloroform in military practice. The author commenced by stating, "The subject of the administration of chloroform in the well-known shock or depression following severe gun-shot injuries, is one, from its nature and the peculiar interest it possesses at the present time, that requires no apology for its introduction, and appears to me to be a fit and proper one for discussion in this Society. The Profession at home naturally look to the Medical Officers of this Army to contribute their mite of practical experience towards the settlement of this important and disputed question; but I much fear they will be somewhat disappointed in the results and conclusions arrived at. Great and grave doubts are beginning to arise in the minds of some unprejudiced practical Surgeons and thinking observers at home and abroad, as to the indiscriminate use of this powerful anæsthetic; so tempting to the sufferer, yet at times so fraught with danger and uncertain in its results, that I defy the most strenuous advocates for its employment to say, *à priori*, what its results may prove in any given case; in other words, to say distinctly what fixed laws it invariably follows, if any. The fatal cases, unfortunately, from the simple extraction of a tooth, or removal of a finger, to the more formidable amputation at the hip-joint, leaves no doubt as to its occasional melancholy result. Dr. Simpson's cases are in a great measure confined to its administration in parturition—a simple process of nature; therefore his great experience does not apply strictly to the subject now under consideration. Dr. Snow's practice—at least a very large proportion of it—I have been informed, has occurred in Dental Surgery; at all events, not in gunshot wounds; and no one, I am sure, will attempt to compare the shock of the extraction of a tooth, or ordinary Surgical operation, to the amputation of a limb close to the trunk. The first case in which I saw chloroform administered in this war was one peculiarly adapted to test this question. It was on the day of the memorable and bloody battle of Inkermann, and the patient was an officer, 29 years of age; the injury was a compound comminuted fracture of the femur near its neck, with injury to the blood-vessels and nerves; much blood had been lost on the field. I need hardly say, after this explanation, what the operation was. Several hours were allowed to elapse after the receipt of the wound, and reaction, with the aid of stimulants, had taken place; the patient was in great pain, most anxious and urgent that the operation should be performed, and earnestly stipulated for the administration of chloroform. At the request of the operator, and after a deliberate consultation had been held, I administered the chloroform, which was measured, and amounted to about 2 drachms. He was rapidly and easily affected, and was neither sick nor convulsed. The operation was performed by Mr. Wyatt with great skill, and the loss of blood was inconsiderable; but I regret to say the sufferer died somewhat suddenly after, notwithstanding all attempts at artificial respiration, the cold douche, etc. Some persons present entertained the opinion that he perished from the effects of chloroform. My own opinion was, that he died under the combined influence of shock and the depressing effects of the chloroform inhalation. It is worthy of remark, that the patient had previously been put slightly under the influence of chloroform, in order to examine the extent of injury, as he would not submit without; and no harm resulted. This is case No. 1, and cannot, therefore, be explained under the convenient term of idiosyncrasy. Great weight is, undoubtedly, due to the opinion of so experienced and talented an operator as Professor Syme; but I much doubt if even this distinguished Surgeon has had any experience in injuries of the peculiar nature we are now about to discuss (notwithstanding the opinion of most civil Surgeons as to there being no essential difference between gunshot and railway injuries). I am fully aware that I am standing on dangerous ground in provoking many antagonists, to say nothing of public opinion, for this appears to have become a popular as well as a professional subject. No one can yet have forgotten the storm of abuse, indignation, and misrepresentation, with which a certain memorable departmental order on this matter was received. Even the Sebastopol Committee, in their anxiety to saddle somebody with something, actually went out of their way in their endeavour to cast unmerited odium on the Medical department of the Army on this very subject: and yet what did this famous order, after all, amount to? A wise and humane caution from an old and experienced officer in the field, to his younger professional brethren, most of them entering for the first time on new and trying duties, requiring all the resources of our art, backed by the wisdom of experience; for, after all, experience must be our schoolmaster. We were bound to respect such an opinion, coming from such a source. I am not about to enter into the question as to whether that caution might not have been more carefully and judiciously worded; for, no doubt, it would have been differently expressed, if intended for the perusal of a popular, instead of a professional public. The introduction of chloroform was, no doubt, one of the proudest discoveries and greatest blessings of the age. It has often contributed to sustain the fortitude of many a brave warrior, and given confidence to many a timid operating Surgeon; and anything calculated, in the remotest degree, to lessen the horrors or soften the terrors of war, cannot but be considered a boon to suffering humanity; hence chloroform must claim almost universal approbation. It does not, however, follow that such an agent should be used indiscriminately, or as a matter of routine, as is too frequently done; but its employment should be withheld, when it can be dispensed with, and whenever it is intended to be employed, too much caution and care cannot be exercised in its administration. Most of the fatal cases have, doubtless, been sought out, and brought before the public. A reference to statistics is here not in my power, but I have been informed by one Medical gentleman, Dr. Rooke, that, for some time, about four years ago, he kept an account of fatal cases, and in a short period collected no less than forty. The statistics of this subject are very imperfect. Many cases may have been hushed up, but by far the larger number have sunk silently into their graves. It is that peculiar state of nausea and depression following its use, in which perfect reaction is never thoroughly established, the desire for food never returns, and the patient sinks, as it were, stealthily, and dies from exhaustion in from twelve to twenty-four hours. These cases are far more numerous than is generally supposed, and many of them may fairly be termed "deaths from chloroform," but are never so returned. I can at this moment bring two or three such to my recollection. Medical men are naturally anxious to avoid the kind of publicity which must attach to fatal cases of operation under chloroform, and therefore only return such as actually die on the table. If the patient survives only half an hour, it is very easy to say he died from the effects of the operation; this obvious source of fallacy ought candidly to be taken into consideration, and I think will go some way in accounting for the uniform success of certain Practitioners. To continue the illustration of this subject from the actual cases occurring in

the surgery of this war, the next instance to which I shall refer was a case of destructive injury to the bone and soft parts of the thigh. The left leg of a soldier was carried away by a round shot during the second bombardment; the knee-joint was smashed, and the femur fractured high up; the muscles and integuments of the opposite thigh were likewise lacerated. The patient was a remarkably fine, muscular young man, and in perfect health. The shock had been great, from the extensive injuries and loss of blood, and perfect reaction had been established. He was calm, collected, and anxious for the operation under the influence of chloroform, which was administered carefully, and in the usual manner, by Dr. Bleckly, of the 14th Regiment, and he was easily influenced. I then proceeded to amputate the thigh at its upper third, by the flap operation. About the average quantity of blood was lost, and it was necessary to apply the saw pretty close to the trochanter. The patient regained his senses for a short time, complained of præcordial oppression and abdominal pain, with great restlessness. He never rallied fairly, and died within an hour, never having been removed from the table; this is case No. 2. I was kindly assisted in this operation by Deputy Inspector-General Taylor, who compressed the femoral artery at the groin, and who, I think it fair to state, considers, that the chloroform enabled the patient to go through the operation. For his opinion, founded, as it is, on the experience of two previous campaigns, I entertain the highest respect; but it appears to me to be a fair illustration of the shock of a severe gun-shot injury, in which the depressing after-effects of the chloroform were not rallied from. As an instance of what may be done in such cases without chloroform, I may here state, that Dr. Gordon, Deputy Inspector-General of 2nd Division, successfully removed the thigh by amputation at its middle third, and the arm at the shoulder-joint on the same subject in succession; and I have the authority of Deputy Inspectors-General Taylor and Gordon (both officers of great practical experience in India,) for stating, that in the campaign on the Sutlej, amputations of the thigh proved more successful without chloroform, than they have done in this campaign under its influence. Dr. Taylor, however, is of opinion that this result may be due to other causes. With regard to the stimulating effects of chloroform upon patients about to sink from the exhaustion of disease, as above quoted, this is a totally different state from the shock occasioned by severe gun-shot injury, with or without loss of blood. But I can adduce an instance of secondary amputation of the thigh, in which the patient was much exhausted after twenty-four days' suffering from a wound implicating the knee-joint: in this instance, there was an unsuccessful attempt at conservative surgery, at the earnest solicitation of the patient, who nearly lost his life from the inhalation of half-a-drachm of chloroform administered by myself; the operation was ultimately performed without chloroform, and with but little suffering. As this case, Sergeant Bennett of the 30th Regiment, was seen by several Medical Officers here, I shall not enter into any further detail. Let me, however, here at once inform the Society, that it is not the intention of this paper to treat on the merits of chloroform generally; they are admitted; and to quote the words of a public commentator on this subject, "Chloroform is so priceless a boon to mankind, that we should all endeavour to ascertain with the utmost watchfulness the nature of the difficulties and dangers which beset its use;" it is only to such that I refer; and I will, therefore, repeat the real question at issue:—

1. Is the administration of chloroform, in the severe depression consequent on large gun-shot injuries, fraught with danger?

2. Are we justified, in a moral point of view, in giving a dangerous remedy for such trifling operations as the removal of a finger or toe, or the extraction of teeth, or bullets lying near the surface?

I think any candid, conscientious observer, who has had the misfortune to meet with such a case as that of Private Martin Humphrey, 62nd Regiment (to recur to the surgery of the war), who died suddenly while under the influence of chloroform for the amputation of a finger, will unhesitatingly answer, We are scarcely justified in trifling, or, in unimportant injuries, in resorting to an anæsthetic that may so suddenly deprive a fellow-creature of life, while we possess so simple, so ready, and so efficient a means of producing local anæsthesia as that described by Dr. James Arnott in the *Medical Times and Gazette* for July, August, and September, 1854. Whatever objections may be urged against this simple and humane means of producing anæsthesia, no fatal result can occur from its use. In all superficial operations, says Dr. Arnott, which constitute the immense majority, cold is superior to chloroform in the circumstances of safety, ease of application, and the saving of time and trouble, certainty of producing anæsthesia, and, lastly, of preventing subsequent inflammation. Anæsthesia will, no doubt, be henceforth a required element of every operation; but chloroform, fortunately, is not the only mode of producing it; and I trust there is a time coming when we may be able to restrict its use to such cases as cannot be affected by other means. The propriety of using an anæsthetic which occasionally destroys life in simple cases is questionable; while we possess one free from danger, easy of application, requiring no assistance, and what is invaluable in military practice, "saving of time." Anæsthesia from cold may be complete in a minute. There is yet another agent of great power and efficacy in a certain class of cases, which it has been the custom of the Profession to sneer at, but which Dr. Esdaile's reports and returns place beyond a doubt. I allude to mesmerism. It is not, however, applicable to military practice. One more case, in illustration of the occasional ill effects of chloroform in the shock following loss of blood. Stephen Newing, a private of the 97th Regiment, aged 21, was wounded on the 8th of September in the attack on the Redan, by a musket-ball through the left fore-arm, producing compound fracture of the ulna; he had likewise a flesh-wound of the right thigh, and a graze of the belly, both by musket-balls. He experienced a slight attack of diarrhœa on the 25th, up to which period he had been doing well: this was of no great severity. On the 30th, he had slight bilious vomiting, shortly after which it was discovered that hæmorrhage had taken place to a considerable extent from the ulnar artery, in all probability induced by the exertion of vomiting. He had lost about 2 pounds of blood before it was discovered. Upon a careful examination of the limb, it was discovered that about three inches of the ulna were dead, and the wrist-joint appeared to be involved. Amputation was therefore decided on, and was performed in about two hours after the discovery of the hæmorrhage; so that the man might, in a certain sense, be said to be under shock. Chloroform to the extent of one drachm only was administered, the operation was rapidly executed, and an unusually small quantity of blood lost. He did not, however, rally from the effects of the chloroform, vomited a fluid of the appearance of coffee grounds, and gradually sank. Artificial respiration, the cold douche, etc., failed to restore animation. Staff-Surgeon Matthews remarks, that he never at any time recovered from the effects of the chloroform insensibility; and, although the immediate cause of death was, doubtless, by loss of blood, or the direct action of chloroform on the brain, or asphyxia, still he is strongly inclined to believe that, had chloroform not been employed, he would not have lost the man. In such cases, the ebbing powers of life are just as likely to be suddenly arrested, as stimulated to fresh vitality; for chloroform does not prevent syncope; indeed, it is one of the modes in which it destroys life. I have not seen that supporting power attributed to it; and here I differ from Dr. Snow, who thinks accidents from chloroform are to be prevented by care in the administration, not in the selection of cases. In confirmation of Dr. Matthews' view of the case, a precisely similar one happened to me in 1849, in which I had to amputate the forearm for secondary hæmorrhage after gun-shot injury, implicating the wrist-joint. The patient, in this instance, Private Hugh Swift, of the 13th Light Dragoons, shot himself through the wrist, while in a fit of intoxication. An attempt was made to save the limb; secondary hæmorrhage suddenly took place on the eighth day after the receipt of the injury, at midnight; and, before it was discovered, he had lost a considerable quantity of blood. A tourniquet was immediately applied; but such was his state of exhaustion, that the propriety of amputation was questionable. He had, however, rallied sufficiently in about two hours, under powerful stimulants; and the amputation was performed without chloroform, and apparently without pain; but such was his condition, that he could not be removed from the table for some hours. He ultimately recovered. Chloroform, I think, under these circumstances would have killed him. In conclusion, I may state, that I was present at every operation under chloroform performed at the General Hospital in camp

during the siege, and several in the 3rd Division; that in many instances I administered the chloroform myself, generally on a piece of lint, the patient always being in a recumbent position, and in no instance was organic disease detected; and I most reluctantly come to the conclusion, 1. That there are states of shock, or depression from loss of blood, following extensive injury, such as the loss of a thigh high up, or the arm at the axilla, in which chloroform may destroy life in various ways. 2. There are likewise cases in which, as I have stated, the patient never fairly rallies, but sinks gradually without any effort at reaction; these cases are never returned as deaths from chloroform. 3. I cannot subscribe to the kind of argument sometimes used to justify its indiscriminate use, viz. :—that the invariable absence of pain to the patient and advantage to the Surgeon, fully counterbalance the risk of an occasional fatal termination. In trifling injuries life is too precious to be thus trifled with; it is opposed to all moral laws; nor can the opinions of hosts of authors, dead or living, make it right in such cases.

(To be continued.)

MR. MARSON'S PETITION TO THE HOUSE OF COMMONS ON THE VACCINATION BILL, 1856.

To the Honourable the Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled,

The Petition of James Furness Marson respectfully showeth that :—

Your Petitioner is a duly qualified Medical man, and has been for upwards of twenty years the Resident-Surgeon of the Small-pox and Vaccination Hospital, London.

Your Petitioner has attended, in the time abovementioned, and has kept accurate notes of, nearly 9000 cases of small-pox.

Your Petitioner has also, in the same period, vaccinated upwards of 40,000 persons, and he is desirous of stating that he has never seen any evil results traceable to vaccination, with the exception of a single instance, in which measles occurred at the same time, and four or five examples of rather severely sore arms, arising from lymph recently taken from the cow. He has never seen other disease communicated with the vaccine disease, nor does he believe in the popular reports that they ever are so communicated. If such results were really true, as stated, and formed part of judiciously conducted vaccination, they must have come under the observation of your Petitioner in vaccinating upwards of 40,000 persons. Vaccination is performed generally at an early age; parents are unwilling to believe that there is anything constitutionally wrong in their offspring; and, when other diseases follow, vaccination gets blamed for what is really and truly due to other causes, as may be seen in those who have never been subjected to vaccination.

Your Petitioner has had, and has still, great cause to regret the suffering, disfigurement, and mortality produced by small-pox, nearly the whole of which might be, in his opinion, prevented by carefully conducted vaccination.

The mortality from small-pox in the unvaccinated, of cases taken generally, is 35 per cent.; but of children under 5 years of age, it is 50 per cent. And of those who recover, a great many suffer permanent disfiguration; some loss of sight, and others have their general health greatly damaged.

The mortality, on the contrary, among the vaccinated, attacked by small-pox, is 7 per cent., taken generally. But among what may be characterised as the badly-vaccinated it is 15 per cent. Among those, on the other hand, who may be considered to have been well-vaccinated,—that is to say, who have four or more good vaccine cicatrices,—the mortality is less than 1 per cent. Thus, the necessity of carefully conducted vaccination is rendered strikingly manifest by the mortality of 15 per cent. in the badly-vaccinated, and only ¾ of 1 per cent. in the well-vaccinated, when attacked by small-pox. In the badly-vaccinated who recover from small-pox there is a large amount of suffering, and permanent disfigurement, that might be prevented, and which should be looked upon as a very serious evil, more especially to the female sex.

Among children under 14 years of age who have been vaccinated, it hardly ever proves fatal.

It should, however, be remembered that no authorised system of vaccination has been established in England. All persons—Medical men, clergymen, amateurs, druggists, old women, midwives, etc.—are allowed to vaccinate in any way he or she may think proper, and the persons operated on are considered to have been vaccinated. The consequence of this carelessness and want of arrangement is, that there has been, and is, a great deal of very inefficient, almost useless, vaccination performed in England.

These facts have been ascertained by your petitioner from a minute examination and classification of the cases of small-pox that have come under his notice at the Small-Pox and Vaccination Hospital, London; which cases were individually carefully recorded in the Hospital register at the time of their occurrence, and the general result of which he has embodied and communicated to the Profession, in the XXXVIth Volume of the Transactions of the Royal Medical and Chirurgical Society of London.

As an example of what can be done by efficient vaccination, your Petitioner begs to state, that not one of the nurses or servants of the Small-Pox Hospital has had small-pox for the last twenty years. They have all been either vaccinated or re-vaccinated, on coming to live at the Hospital.

Nearly all the junior members of the educated classes in this country have, for many years past, been vaccinated, almost without exception. What the educated classes have adopted by choice, after mature deliberation, can hardly, by the most perverted reasoning, be considered improper for the lowest and uneducated class to conform to; it is, in fact, what the latter themselves would most likely also adopt, by choice, if they were educated, and a little higher in the scale of society.

As the law now stands, it can hardly be considered just, individually, to the lower classes themselves. They are not obliged to be vaccinated, but they are not allowed to be inoculated, lest they should propagate small-pox, as they undoubtedly would by inoculation; so that if they do not choose to adopt vaccination, they are left to take small-pox in the natural way; this they almost certainly do take, sooner or later, and small pox in the unvaccinated is one of the most fatal diseases in this country, destroying, as was before stated, 35 per cent. of those attacked by it.

Your Petitioner having had frequent opportunities of judging from the vaccine cicatrices on the arms of seamen from Denmark and Sweden, who have become patients of the Small-Pox Hospital, of the efficient way in which they had been vaccinated, and who, having taken small-pox, have had it, almost invariably, in the lightest form. This, your Petitioner believes, was entirely due to their having been so efficiently vaccinated, and, therefore, he ventures to recommend that similar arrangements to those in force in Denmark and Sweden, for conducting vaccination should be adopted in England.

The many foreigners admitted, in a series of years, as patients at the Small-pox Hospital, have enabled your petitioner to observe that vaccination, is, as a rule, much better performed abroad than in England, that in fact it is far less satisfactorily performed in England than in any other country in Europe, owing, most likely, to a total absence of organization of the subject in this country.

Your petitioner, therefore, fully convinced himself, from ample opportunities of judging for a period of 20 years, of the great good conferred on mankind by vaccination, when judiciously and carefully carried out, and knowing also, from ample experience in vaccination, of no objections to it, except unfounded prejudice, earnestly entreats your Honourable House to pass the Vaccination Bill now before Parliament, in the full conviction that it will be, if provision be made for its due administration, a most beneficial act of the Legislature, for those who, from their carelessness, prejudices, and ignorance, or from their early age are unable, on this subject, to take proper care of themselves. And your petitioner, as in duty bound, will ever pray. Signed, F. Marson,

Member of the Royal College of Surgeons of England, and Licentiate of the Society of Apothecaries, London.

May 26, 1856.

Memorial Hospital at Constantinople.—The Sultan has made a grant of land for the construction of a hospital near Constantinople, to be called the Hospital of Peace, to be open to all nations, and to be attended by Sisters of Charity.

UNWHOLESOME MEAT IN LONDON.

The committee, appointed by the Metropolitan Association of Medical Officers of Health to inquire into the subject of unwholesome meat, report that they have taken every opportunity of making themselves acquainted with the facts of the case, both by personal observation and by conferences with Mr. Fisher, Inspector of Meat and Slaughter-houses in the City of London, and with Mr. Pocklington, Inspector of Markets, to whom they express their thanks for much valuable information.

Sale of Bad Meat.—In the first place, your committee consider the fact to be fully proved, that large quantities of unwholesome meat are constantly on sale to the lower orders in London. At their first meeting, on the 21st of June, Dr. Challice produced several specimens which had been exposed for sale at butchers' shops in Southwark, and which had been either purchased by him or seized under his directions on the same day. For example, there was a sheep's liver which had been seized. It was dark, soft, and ill-smelling, and the veins contained fibrinous coagula. There was a shoulder of mutton purchased at 7d. per lb.; the fat of a dirty yellow, the muscle emaciated, and of a peculiar light colour and sour smell. There was part of a sirloin, purchased at 6d. in Bermondsey, not ill-looking, but wonderfully thin and quite destitute of fat. There were also specimens of veal and beef of nauseous appearance; and side by side with these Dr. Challice exhibited a piece of the boiled flesh of a healthy horse, accidentally killed, which looked and smelled quite wholesome, and a leg of mutton, plump, firm, and of pure white fat, which was destined for the paupers' dinner in Bermondsey workhouse on the next day. The contrast between the mutton provided by the board of guardians for the paupers and that which was offered for sale to the industrious classes was palpable enough.

At a subsequent meeting Mr. Fisher and Mr. Pocklinton were good enough to bring and exhibit portions of beef and lamb which had been seized, on that day, in Newgate-market. The beef was thoroughly wet and soft; the lamb, wet, soft, utterly devoid of fat, in the areolar tissue, and within and around the kidney; pus was found in the areolar tissue of the pelvis by Dr. Gibbon, and the smell of both specimens was incredibly nauseous.

Your committee have also the evidence of Mr. Fisher, that he often sees meat exposed for sale in the suburbs which he should seize if within his own jurisdictien in the city; and of Dr. Gibbon, who has caused unwholesome meat to be seized in the Holborn district.

Great Quantity Sold.—The fact, then, that such meat is habitually offered for sale is indisputable. As to the quantity of it your committee can only refer to a return with which they have been favoured by Mr. Daw, of the City Sewers-office, showing the quantity seized in the city of London during the year 1855. By this it appears that 26 live animals, 612 entire carcases, 696 quarters, 8 sides, and 227 joints of beef, mutton, veal, and lamb were seized in that year, besides an immense quantity of poultry, game, and fish, which probably was condemned because putrid. But it must be borne in mind that the city of London is a privileged place, that the inspection of meat and slaughterhouses is there carried on systematically, and that, as Mr. Fisher declares, much meat which could not be exposed in the city is sold openly in the suburbs.

How to detect bad meats.—In order to give a useful and practical turn to their labours, your committee, on one occasion, invited the inspectors of nuisances out of their several districts to meet Mr. Fisher and Mr. Pocklington at Dr. Dundas Thompson's rooms in St. Thomas's Hospital, in order that the appearances and characters of diseased meat might be explained to them from actual specimens, and that thus they might be prepared for the more efficient discharge of their duties.

Your committee then endeavoured to draw up a short summary of the marks by which unwholesome meat may be known, in plain, unprofessional language, for the use of inspectors of nuisances, as follows:—

The chief marks which show that meat is unwholesome are, in the first place, its colour, which is generally either dingy or too bright.

Secondly, there is the smell, which is peculiarly sour and sickening even when such meat is fresh, and very different from the smell of good meat when tainted through over-keeping.

In the next place, there is a sign which is considered of more value than any other. It is a peculiar and decided wetness of the meat, which is also soft, flabby, and not set.

Moreover, it should be noticed, that there is often a large quantity of blood in the veins, which has curdled there, and not run out as it does when sound beasts are killed. Or, if there are no clots of blood, there will be very likely shreds and flakes of white matter in the larger veins, particularly in the liver.

Then, there is a whole set of signs which show that an animal, before being killed, was greatly out of condition; such as a pale, bloodless eye, a paleness of the "bark" of sheep, and unnatural whiteness of the flesh, which are often seen in sheep which have the rot. Want of fat, and especially of the suet about the kidneys, in place of which a watery flabby stuff is sometimes found, wasting of the fleshy part of the meat, and a watery jelly-like state of the tissue which lies between the muscles, insomuch that drops of water may run out when it is cut across, are other decided signs. It is to be remarked, that drovers are said sometimes to strike heavy blows on the eye to hide the pale look which arises from wasting disease.

Again, there are some signs of special disease. Thus, when cattle have died of pleuro-pneumonia, or lung disease, the insides of the ribs will usually be found to be furred up with a quantity of white curdy matter (pleuritic adhesions); and the same is found inside the flanks when beasts have died of inflammation of the bowels. In these cases, the natural smooth glistening surface of the membrane which lines the ribs and flanks is lost.

One thing to be especially looked for is the little bladders among the flesh of pigs, which constitute the disease known as measles; and similar things in the liver of sheep which have the rot.

Experienced butchers are said to know by the smell of meat whether the beast had certain medicines given to it before being killed.

The above are the chief signs of unwholesome meat; of course they will vary with circumstances—for one animal may be killed at the very beginning of an acute disease, another after it has undergone considerable wasting, and a third may have been merely killed for appearance sake, just before it would have died of itself.

Doubtful Meat.—Your committee must observe that, in speaking of unwholesome meat, they refer to the flesh of animals in a state of disease, and not to meat which has become putrid from having been over-kept, nor yet to meat of second-rate quality. The flesh of old bulls, cows, ewes, and rams, for example, is not first-rate, but has nothing unwholesome in it. Moreover, all traces of previously existing but now extinct disease, such as old pleuritic adhesions, need not be regarded; for, as Mr. Fisher observes, if all marks of former disease were considered cause of seizure, the market would sometimes be entirely cleared. The presence of animalcules in the liver, if the sheep is not yet out of condition, is not considered sufficient cause of seizure by the inspectors, but your committee are not prepared to sanction the exemption.

There are several other cases in which, according to the inspectors, doubt may exist whether meat ought to be seized or not; as in the case of a healthy animal dying by accident; and of cows which are just beginning to suffer from confinement in cowsheds; and of cows which die in calving, the fore quarters of which exhibit no traces of mischief. But your committee think that it is better to err on the safe side. Slipped calves are always seized, but the market is full of calves very little different, which are killed when very few days old, and sent up in abundance from the dairy districts of Somerset and Wilts.

It is quite certain that very much of this doubtful meat, together with large quantities of that which is certainly unwholesome, and especially slipped calves and measly pork, is made into sausages, and daily consumed by the public. Your committee have reason to believe that the flesh of horses (except the tongue) is not used, certainly not extensively used, for human food, simply because it fetches such a good price as cats' and dogs' meat.

Your committee have learned that most of the diseased meat supplied to the metropolis is brought from the country,

that is to say, that very few diseased animals are brought into or slaughtered in London, but that they are killed in the country by persons who make this a regular business. More unsound meat, according to the inspectors, is found in Newgate than in any other market, solely because more country meat is sent there. But there are persons well known in the London trade, who make it their business to dispose privately of meat which could not be exposed openly in any market.

As for the distribution of this meat, there is no doubt that it is purchased after regular market hours, by tradesmen who retail it to the labouring classes late in the evening, in the suburbs of what are called low neighbourhoods. Much meat is sold by gaslight which could scarcely be exposed in broad daylight.

Illness produced by it.—We must now touch upon the important subject of the ill-effects of unsound meat. These are twofold. In the first place, the consumer is robbed of his fair share of nourishment; for it is notorious that second-rate and unsound meat cannot stand the fire, and wastes in cooking to an extraordinary degree. Thus it is the most extravagant kind of food, and furnishes one example among the many, that the poorest people always pay most dearly for everything.

In the next place, there can be no doubt but that the use of diseased meat may be a specific cause of illness. We need scarcely remind you that the eating of measly pork and of ill-cooked animal food in general is notoriously a cause of tape-worm and of various forms of hydatid that infest the human subject. Instances have come under the notice of Dr. Gibbon, Dr. Challice, and other members of the committee, of symptoms of poisoning arising from the use of unsound meat partially cooked. It appears to be almost established, that, in most cases, prolonged boiling deprives it of any active poisonous properties; and it is said that the flesh of glandered horses, after being boiled, can be handled and eaten with impunity; but roasting and frying are far less efficient means of subjecting flesh thoroughly to the purifying influence of heat.

We may allude in passing to the over-fed condition in which cattle are commonly killed at Christmas. Dr. Druitt has seen several instances of illness from eating that kind of meat, but it is matter of gratification that excessive and unnatural fatness seems now to be less cultivated by breeders of cattle.

Your committee may observe that, although it may be difficult to prove it by actual cases, they have no doubt that unwholesome meat is one cause among many, of the debility and cachexies, the poverty of blood and intractable maladies of the poor who flock to the dispensaries and parochial Medical Officers, and especially of diarrhœa during hot weather.

But your committee feel that it is a question which must be argued on far higher ground than that of special ill consequences; they believe that public decency demands that a stop be put, so far as possible, to the sale of the flesh of diseased animals and of those which have died a natural death. They appeal to that highest and best sanitary code contained in the law of Moses (Leviticus xi. 39, and xviii. 15), which they would willingly see observed at the present day.

Preventive Measures.—Now to treat of preventive measures:—Your committee, speaking with due caution on a legal question, believe that the sale of unwholesome meat is indictable as an offence at common law, and is also guarded against by several special enactments, which it may be useful to make known.

There is the act "To prevent the spreading of contagious or infectious disorders among sheep, cattle, and other animals," which was passed in 1848 (11th and 12th Vict., chap. 107), which was extended and continued in 1853 (16th and 17th Vict., chap. 62), and amplified with penalties against the sale and keeping of glandered horses, and which was continued in the present year by the act 19th and 20th Vict., chap. 101. By this act "it is lawful for any clerk or inspector, or other officer of any fair or market, or for any constable or policeman, or for any other person authorised by the mayor, or by any two justices of the peace having jurisdiction in the place, or for any person authorised by her Majesty in Council, to seize all sheep affected with smallpox." And, "if any meat unfit for human food be exposed or offered for sale in any market, fair, or other open or public place, it shall be lawful for such clerks, inspectors, constables, policemen, or other persons authorised as aforesaid, to seize the same, and to report such seizure to the mayor or justice." The mayor or justice may order the thing seized to be restored; and in this case, if there were probable cause of seizure, the officer seizing cannot be made to pay more than 2d. damages, or be fined more than 1s.; on the other hand, should the justice condemn the meat, it is to be destroyed, and the person offering it to be fined £20.

The City of London Sewers Act, 1851, provides for the appointment of inspectors of slaughterhouses and meat, with most summary powers of entering and inspecting every place where cattle may be kept alive or dead, and of seizing and destroying any meat whatever which may appear unfit for the food of man. From this act and the foregoing, Mr. Fisher, the very able City inspector, derives his powers, and affords, as we have said before, considerable protection to the City, at the expense of the suburbs.

The Metropolitan Market Act, 1851, gives full powers over unsound meat to all clerks and inspectors appointed by virtue thereof.

The Nuisances Removal Act for England, 1855, gives the local authority, or their officer or sanitary inspector, power of entering into all premises at reasonable hours, to examine and inspect any carcass, meat, poultry, game, flesh, fish, vegetables, corn, bread, or flour; and if such things appear to the sanitary inspector unfit for food, the same may be seized; and if it appear to a justice that such carcass, &c., is unfit for food, he shall order it to be destroyed; and the person to whom it belongs, or in whose custody it shall be found, shall be liable to a penalty not exceeding £10 for every careass, fish, or piece of meat, &c., and for every parcel of fruit, &c.

It has been represented to your committee, that the most efficient person to be employed as inspector of meat and slaughterhouses would be a man who is a butcher by trade. And this may be true; but your committee do not believe that such appointments are necessary, or practicable at present.

They content themselves with recommending, that the several inspectors of nuisances, appointed under the Metropolis Local Management Act, be empowered to act as sanitary inspectors under the Nuisances Removal Act for England, 1855, and, if necessary, that they also receive authority from two justices, under the act, 19th and 20th Victoria, chap. 131, before referred to. They further recommend, that the inspectors be furnished with a statement of the appearances of unsound meat, such as your committee have drawn up for the purpose, and that they be instructed to visit the shops and markets frequented by the poor, especially on Saturday evenings; that they should proceed cautiously, and take the opinion of the Medical Officer of Health in case of doubt; but yet that they should peremptorily seize any meat which shall answer to the before-described signs of unwholesomeness.

So soon as the fact is made public that the inspectors are on the alert, much of the evil will be abated.

The committee cannot conclude without acknowledging that they are much indebted to Dr. Druitt for his valuable services as secretary at each of their meetings, and they tender him their thanks for the communication of many important facts, and for the drawing up of this report.

John Challice, M.D., Chairman.

MEDICAL NEWS.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, August 21, 1856:—

Blasson, Thomas, Jun., Billingboro', Lincolnshire.
Lewis, Frederick, Birmingham.
Sturges, James Montague, London.

DEATHS.

Gerhardt.—The Academy of Strasburg has just suffered a painful loss in the person of one of its most distinguished members—Mr. Charles Frederic Gerhardt, Professor of Chemistry in the Faculty of Sciences and in the Upper School of Pharmacy, Corresponding Member of the Institute, has been suddenly removed from his family and his

numerous friends, at the age of 40. Mr. Gerhardt died on August 19, of peritonitis, after only three days' illness. We may add, that Mr. Gerhardt had just been elected an Honorary Member of the Pharmaceutical Society of London. His widow is the second daughter of the late Dr. James Sanders, of Edinburgh.

University of London.—Matriculation, 1856.—The following is a list of the successful candidates at the recent Examination for Honours :—

Anatomy and Physiology.—Broadbent, W. H. (exhibition and gold medal), Royal Manchester School of Medicine ; Williams, Josephus A. (gold medal), Queen's College, Birmingham ; Smith, Thomas Parker, Chatham-street, Manchester, and Watson, William Spencer, King's College—equal ; Giles, Joseph, London Hospital ; Liddon, William, King's College ; Batten, Rayner Winterbotham, St. Bartholomew's Hospital, and Jones, Philip Sydney, University College—equal.

Chemistry.—Down, J. L. H. (exhibition and gold medal), London Hospital ; Broadbent, W. Henry (gold medal), Royal Manchester School of Medicine.

Materia Medica and Pharmaceutical Chemistry.—Down, J. L. H. (exhibition and gold medal), London Hospital ; Hodges, William (gold medal), Guy's Hospital ; Siccama, Rinso Robt., King's College ; Smith, William Josiah, St. Bartholomew's Hospital.

Botany.—Smith, William Josiah (gold medal), St. Bartholomew's Hospital ; Broadbent, William Henry, Royal Manchester School of Medicine ; Down, John Langdon Haydon, London Hospital, Smith, Thomas Parker, Chatham-street, Manchester, and Watson, William Spencer, King's College—equal.

Apothecaries' Hall.—The next Preliminary Examination in Classics and Mathematics will take place on Tuesday and Wednesday, the 18th and 19th of November, at 11 o'clock a.m. Medical Students *cannot* be admitted to this Examination before the commencement of their apprenticeship, a certificate of which will be required, but at any period from that date, to the commencement of the second winter session of their curriculum. The examination is at present voluntary, and is conducted both by printed papers and *vivâ voce*. The subjects of the current year, viz., November, 1856, and March and July, 1857, will be :—*In Greek*—The Gospel of St. John, and the First Book of Homer's Iliad. *In Latin*—The First Book of the Odes of Horace, and Cicero de Amicitiâ. *Mathematical*—The First Book of Euclid's Elements, Arithmetic, and Algebra, including Simple Equations. Candidates who fail to pass this Examination cannot be readmitted, but will be required to pass the Latin Examination in *Celsus* and *Gregory* when they appear for their final Examination. Students wishing to attend are requested to send their *Name* and *Address* to Mr. Rivers, Beadle's Office, at this Hall, at the latest, *one calendar month* previous to the day of Examination.

Wisconsin University.—At the late meeting of the Regents of the State University, held in Wisconsin, U.S., the following chairs were filled in the Medical department : —Dr. Alex. Schuc, Professor of the Institute of Medicine ; Dr. Joseph Hobbins, Professor of Surgery ; Dr. H. Mercer M'Cabe, Demonstrator of Anatomy. Dr. Joseph Hobbins was educated at the Queen's College at Birmingham, England.

Case of Malpraxis.—In the case of M. Renaut, recently condemned by the tribunal of Château-Thierly to fine and imprisonment for having caused a patient's death by the application of the acid nitrate of mercury in a case of œdema glottidis, the Imperial Court of Amiens has reversed the judgment.

The Medical Department of the French Army of the East.—It is now stated upon authority, that the Medical body of the army has lost the large number of 70 from the time of its first disembarking in the East to the present time. The *Moniteur des Hôpitaux* has opened its columns for subscriptions for the widows and orphans. It seems that in France as well as here the Military Medical body has its disadvantages, inasmuch as the privileges of their widows are not the same as those of other officers.

Fees to Medical Witnesses.—At Clerkenwell police-court, on Friday, in a charge of rape, at the conclusion of the case, Mr. Smellie, the Medical witness in the case, stepped forward, and asked Mr. Corrie if he would be kind enough to give him a certificate of his attendance in the case. Mr. Corrie : I have no funds at my disposal to pay you. Mr. Smellie : But, sir, I have been called away from my other engagements at the instance of the police. I responded to that call, and for the purpose of facilitating the ends of justice I have at once attended here, and I expected a certificate accordingly. Is it fair that the payment of a Medical man's fee should depend on the prisoner being found guilty ? Mr. Corrie : No, not being found guilty, but committed for trial. Mr. Smellie : Well, the non-payment at least depends on the opinion you give of acquittal. Now, is this fair or just to the members of a Profession who are always ready and willing to serve the public in cases of emergency ? You, sir, as a member of the legal Profession, know that the public cannot command the services of its members in this way, and could not treat them in such a very unjust manner as this. Mr. Corrie : I do not say it is fair or proper. I think you are justly entitled to your fees ; but what am I to do ? I have no funds. I am sorry for it, but I cannot see how I can help it. If I gave you a certificate they would not pay you. Mr. Smellie : If I had studied my own convenience I should not have attended without a summons. It is a strange meed of justice to deal out to members of the profession to which I have the honour to belong ; for if you do not commit, we do not get paid. Mr. Corrie : I am very sorry, but I cannot help it. I think, Mr. Smellie, you are properly entitled to your fee ; but what am I to do ? There are no funds for such purposes at my disposal, otherwise I should allow it. Mr. Smellie then thanked his worship, and withdrew.

"Quietness."—The woman McMullen, who had administered powders of tartarised antimony, under the above name, to her husband, and caused his death thereby, has been found guilty of "Manslaughter," and sentenced to transportation for life, the Jury "taking a merciful view of the case."

Addison's Disease.—Lecturing on an example of the Bronze Disease, shown by Addison to be so frequently connected with disease of the supra-renal capsules, M. Trousseau suggests that it should be denominated "Addison's Disease." He believes it an excellent practice to designate diseases by the names of those who have discovered or first correctly described them. We have at present, "Pott's Disease" and "Bright's Disease," and M. Trousseau thinks the practice may be well extended. For example, it would be but an act of justice to term insufficiency of the aortic valves, "Corrigan's Disease," and endocarditis "Bouilland's Disease."

Sweden.—The *Courrier du Sund* of Copenhagen says, "Cholera has broken out in Lubeck and at Ystad (Sweden). On board the steamer *Malmoe*, which arrived here from Lubeck, the stoker was seized with the disease ; and on the Swedish steamer *Bore* six passengers were taken ill, and four of them died."

Mortality Notabilia.—The number of deaths in London in the week that ended last Saturday was 1122, which is less by more than 100 than it was in either of the two preceding weeks. As the temperature is now lower, there is ground to hope that the mortality reached its maximum for this season in the week that ended August 16, when the deaths rose to 1250. Whilst the mortality was rising, the mean weekly temperature was about 67° ; it decreased last week to 57·8°. In the corresponding weeks of ten years, 1846—55, the average number of deaths was 1241, which, if corrected for increase of population, becomes 1365. Excluding epidemic seasons, the corrected average for the week is nearly 1100. The deaths from diarrhœa, which in the two previous weeks were 211 and 253, were last week 214 ; and those from cholera, which in the former weeks were 28 and 22, were last week again 22. All these 22 cases, with the exception of 6, occurred to infants, and are referred to that description of cholera which is common in the summer months. But it will be noticed, on comparing the returns of corresponding weeks, that diarrhœa has been more prevalent than usual this season.

Births.—The births of 778 boys and 751 girls, 1529 children, were registered ; average 1435.

ORIGINAL LECTURES.

LECTURES
ON THE
VARIETIES OF CONTINUED FEVER AND THEIR DISCRIMINATION.

DELIVERED AT

St. Thomas's Hospital.

By THOMAS B. PEACOCK, M.D.,
Assistant-Physician to St. Thomas's Hospital, etc.

LECTURE IV.

TYPHOID FEVER.—*Continued.*

Case 8.—*Typhoid Fever, with predominant cerebral symptoms, fatal on the nineteenth day.*—Elizabeth White, aged 18, a servant, was admitted under my care into Elizabeth Ward, St. Thomas's Hospital, on the 20th of December, 1855. When admitted, she stated that she had been ill nine days, and ascribed her attack to sudden exposure to a cold draught when much heated. She was previously in delicate health, the catamenia had not appeared for six months. She was first seized with violent febrile symptoms, with severe headache, and had continued to grow worse up to the time of her admission. She was then directed to take iv. grains of hydrarg. c. cretâ, with vj. of Dover's powder at bedtime, and the chlorate of potash mixture with decoction of cinchona every three hours, and to have a glass of wine.

22nd.—She complains of suffering from pains in all parts of the body, and of throbbing in the head, and she is much prostrated. The pulse is weak and intermittent; there are sordes on the lips and teeth, and the tongue is covered with a dark brown fur. She cannot take food; but is very thirsty, and drinks freely. She is very torpid and restless at night. The bowels are somewhat relaxed. She has a troublesome cough, and there are several characteristic typhoid spots on the skin. A sinapism had been applied to the chest the day before, and she was now directed to take 10 grains of tannic acid each time the bowels were relieved, and to have 2 glasses of brandy daily, in addition to the 2 glasses of wine she was previously taking. To substitute the ammonia and bark mixture for the chlorate of potash. The day following, the wine was increased to three glasses, and on the 24th to four. The same evening the restlessness and jactitation being great, she was directed to have a draught of half a drachm of solution of morphia, and one drachm of aromatic spirit of ammonia, and this was repeated the two following nights.

27th.—Yesterday she had retention of urine, and required the catheter, and a considerable quantity of water was withdrawn. She is greatly prostrated, and the diarrhœa continues; but she is conscious when she passes her evacuations. She takes her food and stimulus better; but has constant low muttering delirium, with tremor of the extremities. The pulse is very quick and feeble; there are sordes on the teeth, and the tongue is dry and brown. The face is flushed; the eyelids droop, and the pupil is small. She has not slept for thirty hours, but now appears inclined to doze. The abdomen is tumid but not tender. The skin is cool. There are a few typhoid spots on the abdomen.

29th.—She is more prostrated, and is only partially intelligent, and breathes with a constant moan. There are sordes on the teeth. The tongue is dry and brown; the pulse rapid and feeble; the stools pass involuntarily, and the urine is retained. The hands are livid and cool, and there are large livid patches on the extremities and back. She became perfectly insensible, and died comatose at 5·20 on the 30th, or on the nineteenth day of illness.

The *post-mortem examination* took place at noon on the 1st of January.

The membranes of the brain and its substance, except being somewhat congested, were healthy.

The heart and pericardium were healthy, and in the cavities there was some fibrinous coagulum.

The middle lobe, the anterior angle of the lower lobe, and the anterior two-thirds of the upper lobe of the right lung were crepitant and healthy. The remaining portions were solid, and had a deep bluish-black tint on the surface, and were studded here and there with small isolated, crepitant patches. On section, this part was found of a deep reddish-black tint, and airless, but it was not readily lacerated; it yielded a fair quantity of reddish serous fluid, but nothing like pus. The mucous membrane of the bronchial tubes, especially in the solidified parts, was healthy, but the tubes contained much viscid transparent yellowish fluid. The left lung was in a similar state, but the solidification was less extensive.

The peritonæum, stomach, duodenum, and jejunum were healthy. The lower two-thirds of the ileum presented extensive typhoid disease. The diseased patches increased rapidly in number and size from the point where they commenced, to the ileo-cœcal valve, and varied from a line to an inch in diameter. The surface of nearly all of them presented an adherent yellow slough, which in some of the larger ones was two lines in thickness. In some instances the sloughs had nearly separated, but in most it was still firmly attached at its margins to the thickened mucous coat, and inferiorly to the muscular. A vertical section showed that the slough ceased abruptly at the surface of the muscular coat. When this disease affected Peyer's patches, the sloughs were usually clustered, but all the patches were not thus affected. The mucous membrane on the ileo-cœcal valve was perfectly destroyed. Two or three similar ulcers were observed in the cœcum and commencement of the ascending colon. The mucous membrane around the ulcers was deeply congested and tumid, and the edges were abrupt. Spleen large and pulpy. Liver, pancreas, kidneys, and uterus healthy.

Case 9.—*Typhoid fever; pleuropneumonia; fatal on the thirtieth day of illness.*—William Holmes, aged 23, a labourer, admitted into the Royal Free Hospital, under my care, on the 10th of June, 1848. The following notes were taken at the time of his admission:—

He has been ill for fourteen days, but was suffering from chronic cough before. He speaks with a peculiarly husky voice, and has a slight cough; he has never spat blood, but has been for some time growing thinner; he has been suffering from diarrhœa for fourteen days, and is much prostrated; he has not had epistaxis. The chest is sparingly resonant over the whole front, and especially at the clavicles and infra-clavicular spaces. There is general sibilant wheezing, with the inspiration and expiration, over both sides; there is no material resonance of the cough. These symptoms exist also on the back, and there is, perhaps, some crepitation posteriorly. The face is flushed; the pulse 116; the tongue dryish, red, and glazed in the centre. He has a hard cough, without expectoration; the skin very hot and dry; one or two small elevated spots, fading on pressure, exist at the epigastrium; and there is a slight herpetic eruption, now scabbing around the mouth at the right side. The bowels have been twice relieved since his admission.

℞ Hydrarg. c. cretâ, pulv. ipecac. co. āā. gr. iv. o. n., mist. menth. sulph. ʒj. tertiis horis.

June 14.—Pulse 100; tongue dry and brown in the centre, and white and moist at each side. Less tenderness, and not much inflation of the abdomen; bowels four or five times relieved; stools very pale, not bloody; yesterday they were slightly tinged. He rambles at intervals; but answers questions rationally when addressed. There has never been epistaxis. Yesterday he was ordered four glasses of port wine.

℞ Plumb. acet. gr. xij., acid. acet. dil. ʒss., tinct. opii camph. ʒss., aquæ ad. ʒviij, m. ʒj. 4tâ quâque horâ.

16th.—Skin bathed in profuse perspiration and cool, especially the arms and hands; pulse 116, feeble; he has been very delirious, but the ice which was applied to the shaven head yesterday gave him uneasiness, and cannot be kept applied. The tongue continues dry, and red and glazed. There are large dark patches on the abdomen on the seat of the stimulating poultice. He had yesterday a blister between the shoulders. 6 ounces of wine.

17th.—He is to-day much prostrated, and the cheeks are flushed and of a peculiarly mahogany hue; the abdomen is tumid and tense; the marks from the poultice are very bright; the tongue is dry, a little brown, and the papillæ elongated; the skin is cool; the chest is covered with perspiration; he has constant delirium, but answers rationally when addressed; the eyes are red and injected, and the pupils contracted; the bowels have been four times relieved; there is no blood in the stools, and the evacuations are of a pale colour; pulse 120, large, very compressible; head hot; he still dislikes the ice.

19th.—Abdomen very tympanitic. He was very delirious

last night, and the evening before took a draught with one-third of a grain of morphia. Since six this morning he has slept at intervals for some time. He has now much tremor, and is low and depressed, but speaks rationally. Pulse 148, very feeble; passes his water freely, and has done so from the first; the urine is clear and without sediment, not high-coloured. Six ounces of wine and three of brandy. A blister to the head. The serpentary and ammonia mixture every two hours.

20th.—Pulse 132, of better volume; was quieter last night, but did not sleep, and has dozed a little this morning; the tongue is cleaner and more moist; the skin moderately warm, but not harsh though not moist. The bowels have been five times relieved; he makes water freely, it is high-coloured, and has a slight sediment. He speaks rationally when addressed, and takes his food freely. Pil. plumb. acet. c. opio j. o. n. vel p. r. n.

22nd.—Has been a little better, but had to take three pills in the day. The blister was repeated on the head. Last night he was very delirious, and did not sleep at all, and to-day he is more restless. His bowels have been five times relieved, and the stools are very loose; the abdomen is tense and tympanitic; the tongue is clean, but dry; the pulse 132; the skin hot and harsh. To take the mixture of acetic acid and acetate of lead, with compound tincture of camphor, alternately with pills containing sesquicarbonate of ammonia 3 grs., and hyoscyamus 2 grs., three times daily.

24th.—He is very deaf, and is in a state of great and constant tremor; the tongue is dry, and brown in the centre; yesterday he appeared to be dying, and was low and semi-comatose; to-day he has rallied. The pulse is now 152, and it is scarcely perceptible; partly from its feebleness, but chiefly from the constant tremor and subsultus. He is so deaf as to be scarcely capable of being made to hear, and he can with difficulty protrude the tongue. The abdomen is tense and tympanitic. He wished for porter, and was allowed to take it *ad libitum*, if it did not add to the diarrhœa. 6 ounces of brandy and 6 of wine.

25th.—This morning there is a copious eruption of full-sized sudamina on the sides of the neck and top of the chest, extending to the epigastrium; the chest is bathed with profuse perspiration, and the skin is cool; he is breathing with tracheal râles; the tremor is extreme, and he has constant catching in breathing. The abdomen is tense and tympanitic, and very swollen; it is impossible to feel the pulse; he is constantly muttering to himself, and is nearly comatose; the tongue is moist. He died the following morning, or on the thirtieth day from the commencement of his illness.

Autopsy. — On removing the calvaria there was found a considerable subarachnoid effusion, and much fluid was contained in the ventricles and at the base. There was no undue vascularity of the brain, and the cerebral substance was of natural firmness.

The larynx contained some viscid mucus, and the mucous membrane was of a deep red colour, and somewhat swollen. There was a large effusion of opaque semi-purulent fluid in the right pleural sac, and the serous membrane was covered with recently-effused lymph. The right lung was considerably compressed, and the posterior part of the lower lobe was solidified, and at the inferior part of the side there were several small gangrenous abscesses. The left lung was free, but sparingly crepitant. The bronchial tubes contained some little mucus, and the mucous membrane was reddened.

The heart was flaccid; its cavities contained imperfectly coagulated blood; the pericardium contained a considerable quantity of opaque yellowish lymph.

The liver was somewhat congested, as were also the kidneys; the spleen was very large, and became pultaceous on being pressed.

The stomach at its greater curvature was much dissolved by the gastric fluid. Towards the pylorus the mucous membrane was soft and thick, and there were some small apertures which resembled the open mouths of follicles; there was no appearance of undue vascularity or reddening of any part. The mucous membrane of the duodenum was somewhat injected. At the lower three feet of the ileum there was found disease of the plates and solitary glands. Above, these were found enlarged with elevated and everted edges, and with more or less completely separated yellow eschars; lower down the eschars were gone and ulcers left. Some of the ulcers had the muscular coat distinctly forming the base. Some had sloping edges, as if healing; others were abruptly defined. The mucous membrane around the ulcers was reddened to some extent; but lower down and especially near the ileo-cœcal valve, the whole surface was covered with ulcers; the mucous membrane was intensely red all over. In the cœcum there were a few ulcers, mostly healing; and in the ascending colon the appearance of ulcers healed,—the mucous membrane being puckered and white, and in some places rough from lymph. The mesenteric glands were a little enlarged, and pale yellow coloured.

Case 10.—*Typhoid fever with profuse discharge of blood from the bowels; fatal during convalescence, or about the sixty-ninth day from the commencement of illness, from otitis and cerebral effusion.*—Seraphine, an Italian image boy, aged 25, admitted under my care into the Royal Free Hospital, on the 9th of November, 1846. At the time of admission he stated himself to have been ill for fourteen days, but no very satisfactory history could be obtained of his illness. The pulse was then 120; there was some tenderness of the abdomen, and the tongue was dry, fissured, and covered with a brown fur.

On the 10th he had passed a good night, but moaned much during his sleep. The bowels had been twice relieved; in the first stool there was a large quantity of dark blood, and a black sediment fell to the bottom of the vessel. It was very fetid, and without fecal matter. The pulse is 104, weak. The tongue dry and brown; there is some inflation of the abdomen, and tenderness, especially in the right iliac region; he has made water freely. To continue the acid mixture and take a grain and a-half of acetate of lead and half a grain of opium three times daily.

Nov. 11.—Pulse 100, quiet and very compressible; tongue dry and brown; checks much flushed. He was delirious during the night, and attempted to get out of bed. The bowels have been relieved four or five times, and the evacuations consist almost entirely of fluid blood, of a dark colour. There is considerable inflation of the abdomen, and some tenderness, especially in the right iliac region. The respiration is natural. He is much collapsed. To have 4 ounces of port wine, and a blister to be applied to the back of the neck.

13th.—Pulse 100, of moderate strength; tongue dry, glazed, and very red, with the papillæ projecting at the tip and edges, somewhat furred in the centre; face flushed; conjunctivæ injected, and pupils somewhat contracted; he has a slight cough, and has been delirious during the night. This morning he was so violent as to require restraint. He is now more composed and intelligent, but has much tremor of the hands. There is less appearance of prostration. The abdomen is less inflated, tense, and tender. The skin is moderately warm. The bowels were only twice relieved after the visit on the 11th, but only once on the 12th, and once this morning; but no blood was passed during the former two days. To-day there was much blood mixed with fæces. Last night he was again restless, but yesterday he dozed several times. He has taken wine and beef-tea with evident advantage. The acetate of lead and opium pills to be taken only twice daily.

14th.—Pulse 116, quiet, of sufficient strength; skin dry and moderately warm; there is still some abdominal tenderness; tongue very red and dry, but not materially furred; was extremely restless and delirious at the early part of last night, but slept a little towards morning; he has much tremor; the bowels have been once relieved; the evacuation was solid and very fetid; it contained no blood; he has a slight cough. To take the acidulated infusion of roses with half-drachm doses of tincture of henbane every three hours. The head to be shaved and to have a blister applied to the nape of the neck.

16th.—Pulse 108, small, feeble, and quiet; tongue more moist and cleaner; less appearance of prostration. Bowels relieved once daily; stools fluid but free from blood. On the night of the 14th he was restless and delirious; slept last night. There is to-day no tremor. He has taken little wine since the 14th, but relishes his milk and rice.

17th.—Has passed a comfortable night, and was not delirious. There has been no return of hæmorrhage; the bowels have been once naturally relieved. The tongue is large, chapped, and somewhat dry; the pulse 100, feeble, and very small; the skin moderately warm but dry; he passed water in bed last night; he has a very slight cough, but no expectoration; no thirst. He takes his food well. To have 3 ounces of wine. There are four or five small, slightly eleva-

ted spots, which fade on pressure, on the lower part of the abdomen.

18th.—Pulse 116, fuller; but he has just taken some wine, and his face is flushed and the skin warmer. He has passed a good night. The tongue is large and chapped, and red at the edges, and less brown and dry towards the centre. The spots observed yesterday have nearly disappeared, and are replaced by a copious eruption of sudamina on the chest and abdomen. Skin cool and moist. He had a slight fur and perspiration on the face this morning. He has taken only 2 ounces of wine.

19th.—Pulse 108, fuller and stronger; tongue more moist, and with a white fur scaling off; still red at the edges and tip. Slept comfortably last night, but still moans. Bowels natural; the red spots are still prominent on the abdomen; and the sudamina have spread and are of larger size. The skin is cool and moist, but not especially so. He had a profuse perspiration at seven last evening for half-an-hour, but this was chiefly confined to the back and face, and there was no material moisture where the sudamina are out. He makes water freely. The wine produces some flushing, but he takes the broth well. To omit the wine.

20th.—Pulse 104; tongue dry, brown and chapped; the sudamina are fading, and the papular eruption is gone; the papillæ of the skin generally are elevated and shining; the bowels were relieved once yesterday; the evacuation being solid. He passed a good night, and perspired freely towards morning. The urine is copious, but high-coloured. He hears well, and has done so during his attack.

21st.—Pulse 100, feeble; tongue dry, and slightly brown and chapped; skin cool and moist; papillæ less prominent and rough; he sleeps well; stools and urine natural. To take a mixture with infusion of cascarilla.

23rd.—Pulse 120; tongue dry, red, and chapped; skin dryer and warmer; he has no cough; bowels confined; does not take his food so well. To have a slight mercurial, and a dose of castor oil in the morning.

24th.—Pulse 124, quiet; bowels comfortably relieved; skin cooler and moister; tongue whitish, dry, and chapped; face flushed; he has a slight cough, and there is much dry mucous râle in the chest. To have a blister applied between the shoulders.

25th.—Pulse 112, quiet; skin cool and moist; tongue clean, but still red and chapped; bowels confined.

27th.—Pulse 112, quiet, feeble; tongue as before; bowels relieved by a dose of castor oil.

29th.—Pulse irregular, intermittent, and feeble, 115 to 120; tongue large, chapped, and somewhat dry; skin cool and moist; bowels relieved only after medicine. Meat and porter ordered.

Dec. 1.—Pulse 140. Has just taken some porter. Tongue dry, glazed, and chapped, a little whitish towards the root; skin cool and dry. General improvement in appearance. Has some slight cough.

8th.—Allowed to leave his bed.

15th.—Having continued to improve he was discharged to-day, or on the thirty-sixth day from his admission, and the fiftieth from the commencement of his illness. He was still weak, pulse 100; tongue a little chapped.

He was brought back to the hospital on the 18th. The weather was extremely cold when he went out. No history of what he had been doing while away could be obtained.

When re-admitted he was much collapsed, scarcely able to walk to the bed, and only capable of being aroused with difficulty to answer questions, and then answering almost unintelligibly. He, however, seemed to recognise some of the patients in the ward. Stimulants were given to him; a cold lotion was applied to the head, and a blister placed on the back of the neck. The following night he became extremely riotous: throwing his hands and legs about, and calling out incessantly. At 11 a.m. he had two grains of opium given to him, and this was repeated at 5 p.m., and he then slept and passed a less disturbed night.

On the 20th he was directed to have half-an-ounce of brandy every two hours, and had a dose of two grains of calomel and one of opium at bedtime.

On the 24th he was quieter, and a discharge made its appearance from the left ear. With the increase of the discharge his symptoms began to subside, and he was more intelligent. The brandy and opium were replaced by beef-tea and porter. From this time, however, he began to decline in strength, and, on the 2nd of January, he became comatose, and died the following day, or on the sixty-ninth day from the commencement of his illness.

During his last residence in the hospital he was apparently very deaf. Under the stimulating plan the collapse subsided, and was followed by a flushed face. The pupils were at first dilated, but became subsequently contracted, and the conjunctivæ, from being pale and glassy, became slightly injected. The feet were latterly extremely livid.

Autopsy.—The lungs, heart, liver, and kidneys were found healthy; the spleen was large and moderately firm; the stomach and duodenum were healthy; the mucous membrane at the lower part of the small intestine was much congested, and there were several ulcers of the glands of Peyer, with depressed edges and in process of healing; in one the muscular fibres were exposed at its base; the mucous membrane surrounding the ulcers was of a black or deep leaden colour. The disease had evidently been most extensive in the neighbourhood of the cœcum. The cœcum itself was free from appearances of disease, and contained moderately solid yellow coloured fæces. The small intestines were contracted, and, except in the ileum, displayed no appearances of disease. The mesenteric glands in the ileo-cœcal mesocolon were somewhat large, but firm; and had a leaden colour on section. One was of considerable size, and of a rose colour, but retained its usual consistence.

The arachnoid membrane covering the hemispheres of the brain was elevated above the level of the convolutions, by a copious effusion of serum. The ventricles also contained much limpid serum, and some flowed from the base. The substance of the brain was firm, sparingly vascular, and in every respect healthy; the sinuses and membranes at the base were natural. A considerable quantity of pus welled from the ear in the course of the dissection, and, on laying open the tympanic cavity, its lining membrane was found thickened, softened, and in places eroded. The cavity was filled with pus, and the matter extended also into the canals communicating with the tympanum and into the cells of the bone. Notwithstanding that the lining membrane was extensively diseased, and readily separated from the bone, the latter was apparently free from disease, and the dura mater appeared healthy.

Case 11.—*Typhoid Fever, fatal from laryngeal complication occurring during convalescence, or on the seventy-second day from the commencement of illness.*—For the notes of this case I am indebted to Dr. Stone, who was then my Clinical clerk.

Mary Hipwell, aged 33, a workwoman, was admitted under my care, into Elizabeth Ward, St. Thomas's Hospital, on the 8th of December, 1853.

The following notes were taken at the time of admission:—

She is a small spare woman of delicate appearance; has been out of health for some time, but the present illness dates only three weeks back. At that time she began to suffer from general prostration and low spirits. Within a few days she has had rigors, giddiness, and occasional vomiting; and was obliged to give up work. Since then these symptoms have been on the increase, and in addition she has had some diarrhœa, of late very severe in character.

At present her face is flushed, the tongue morbidly red and dry, the general appearance confused, and characteristically febrile. The bowels were much relaxed last night 7 or 8 times, pulse 84 very feeble.

℞ Pil. plumbi acet. c. opio. j. ter die; mist. potassæ chloratis et decoct. cinchonæ ʒj. tertiis horis. Milk diet; wine ʒiv.

9th.—Says she feels rather better; bowels opened three times during the night; slept tolerably well; pulse 80; tongue brown and furred for about an inch along the dorsum; abdomen tympanitic and tender on pressure; gurgling in the right iliac fossa.

10th.—More flushed, and less rational in manner, does not know how often the bowels have been opened—they having been acted on three or four times during the night; stools light and clay-coloured, takes no food, has complained of pain and tightness over the chest during the night, pulse 100 vibratory; no appearance as yet of eruption.

11th.—Tongue red, raw, and glazed, with some chapping, pulse 100 feeble; face more flushed; appearance still more prostrated; slight collection of sordes on the teeth; no typhoid spots on the abdomen, but somewhat copious eruption of sudamina over the chest and neck; skin dry and warm but not harsh; abdomen tumid and tender; bowels twice acted

on, motions dark and thin, not offensive; has not been delirious; and is now quite rational. Wine ʒvi.; beef-tea.

12th.—Says she is much the same; slept pretty well; not so flushed and intelligent; tongue the same; pulse 90; bowels twice acted on; some slight cough; abdomen tender; no eruption but sudamina copious.

13th.—Somewhat better; diarrhœa less severe; other symptoms unchanged, though slightly abated in intensity.

14th.—Slight disposition to vomit; the bowels once acted on; on the whole better, though still some cough.

15th.—Less prostrated and flushed; tongue cleaner; though red and raw; pulse 96 quiet; abdomen slightly tumid and tender; no eruption; bowels not opened to-day. Pil. o. n. Mist. pot. citrat. efferves. 4tis horis.

16th.—Bowels twice acted on; slept pretty well; tongue rather more healthy; pulse 86; is complaining of pain in the abdomen, apparently from increased consciousness; still some vomiting.

17th.—Slept well; bowels three times acted on; in other respects stationary; no eruption; some vomiting.

18th.—Face again more flushed; more cough; pulse 116, very feeble; tongue red and sore towards the tip; bowelss even times acted on; less vomiting; no eruption. ℞ Ammon. sesquicarb. gr. v.; decoct. serpentariæ ʒi. 3tiis horis. Brandy 3 glasses.

19th.—Somewhat better; less depressed and more natural in countenance; pulse 100; tongue red and raw; takes all her stimulants and some food; diarrhœa less severe; cough troublesome.

From this time she continued to improve, gaining some strength, and with abatement of the diarrhœa, until January 14th. At this date her chest was carefully examined, but without eliciting any distinct information beyond harsh and prolonged respiratory sounds.

Beef-tea, slice, 2 eggs, wine ʒvi., brandy ʒij.

16th.—Feels somewhat better, has slept better of late, pulse 80, very feeble, bowels usually 3 times acted on in the 24 hours, tongue better, still red and raw. ℞ Ol. jec. asell. ʒij. ter die.

21st.—The general symptoms have been improving, but the breathing has been worse, with loud stridulous inspiration and hoarse sonorous expiratory sounds; complains of some pain about the region of the larynx, stating that she has taken fresh cold. Empl. sinap. collo. To inhale the steam of hot-water.

22nd.—Much the same, breathing still very difficult. Empl. lyttæ gutturi. ℞ Hydrarg. c. cretâ gr. ij., pulv. Doveri gr. v. 6tis horis. Ung. hydrarg. utrique axillæ.

23rd.—Breathing more easily, pulse 88 very feeble; the stridulous inspiratory sound continues, has spat a little very viscid, brownish mucus, in parts containing small air-bells; this expectoration has given some relief to the breathing.

Nothing abnormal can be detected in the fauces; the epiglottis can be felt of natural shape and size; complains of pain on pressure over the larynx and trachea. The air enters very imperfectly into the chest, and mucous and sibilant sounds are heard posteriorly.

25th.—Yesterday (24th) her breathing was easier, and as her gums were beginning to be spongy, the inunction was stopped. To-day she expresses herself as more comfortable, but breathes with a loud stridulous inspiratory sound; pulse 100, feeble; bowels twice daily; she brings up a small quantity of tough mucus; gums somewhat spongy; bowels twice daily. Empl. lyttæ.

27th.—Seems much weaker, was unable to take her medicine or food to-day, the stridulous breathing has increased.

This latter symptom continued to increase until 3 on the morning of the 28th, when she died, or on the 72nd day from the commencement of her illness.

Post-mortem Examination.—Body very much emaciated, lungs crepitant throughout, though congested at the lower and posterior parts, full of bronchial mucus; no appearance of tubercular deposit. Heart, spleen, and kidneys healthy; liver rather large and light coloured, but otherwise healthy.

Duodenum and stomach healthy, towards the end of the jejunum, and in the ileum, were many ulcerated spots, of old date, and in process of cicatrization, These ulcers were much more abundant in the neighbourhood of the ileo-cœcal valve—there were a few cicatrizing patches in the cœcum itself.

In the larynx there was found a small circumscribed abscess, about the situation of the left sacculus laryngis, containing about half a teaspoonful of pus, with much tenacious mucus in the vicinity. It appeared to press in the mucous coat, which was thickened and somewhat congested for a short distance round.

LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.,

Assistant-Surgeon to the Royal Orthopædic Hospital; Lecturer on Surgery at the Grosvenor-Place School; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital, etc.

LECTURE IX.

CONGENITAL TALIPES VARUS—*Continued.*

MORBID ANATOMY IN THE ADULT.

GENTLEMEN,—Having described to you, in the last lecture, the morbid anatomy of talipes varus as it exists at the period of birth, we will now proceed to examine the anatomical conditions of this deformity as it exists in the adult, *i.e.* after the full completion of growth; and, in so doing, let us particularly examine the nature of the changes which take place during the period of growth. I then propose to consider some points in its general pathology, and will afterwards describe to you the mechanism of this deformity and the method of treatment which I believe to be best adapted to its removal in infancy, youth, and the adult periods of life.

Here, at the threshold of our inquiry, a difficulty stares us in the face, for which you perhaps are not prepared, but which, by a most fortunate circumstance of recent occurrence, I am in a great measure able to overcome. The difficulty consists in the absence of specimens, from which a description of the morbid anatomy of congenital talipes varus in the adult may be drawn. Strange as it may appear, there is not a single specimen, in any museum in London, of adult congenital talipes varus, dissected so as to exhibit the relations of the bones, ligaments, tendons and muscles, in this deformity. The few specimens which exist have all been macerated. In the museum of St. Thomas's Hospital, we have an articulated foot from a case of talipes varus in an adult, without any history, but I have no doubt the deformity was of congenital origin. I have described this specimen in the third volume of the "Pathological Society's Transactions," and the astragalus, Fig. 39, was taken from it. In the museum of St. Bartholomew's Hospital is the skeleton of a man, aged about 50 years, who had—as my friend Mr. Holmes Coote, who dissected the feet, informs me—"during life suffered from an extreme degree of distortion of both feet (talipes varus), obliging him to walk, with the aid of crutches, on the dorsum, instead of the soles of the feet." The deformity in this case was, doubtless, of congenital origin. The right foot has been completely macerated, and the bones articulated, but in the left the ligaments and the insertions of the tendons remain. This is one of the best specimens from which the morbid anatomy can be studied, and I shall again refer to its dissection.

The museum of the London Hospital contains a foot, which was dissected by Dr. Little, after it had been long preserved in a dried condition, and is figured, both in Dr. Little's Treatise on "Club-foot," 1839, page 12, and also in his "Lectures on Deformities," 1853, page 135.

In the former work, this specimen, which at that time was probably considered to be one of congenital origin, is described as an example of "talipes varus" and it is stated that "it may be relied on in the study of the anatomical characters of this disease," but in the latter work the same specimen is represented and described as one of "contracture similar in form to congenital talipes varus. No history of the case could be obtained. It is doubtless the result of non-congenital spastic deviation of the foot." I have no doubt that this specimen was from a non-congenital case, and as its anatomical conditions do not correspond with those of the specimen which I shall presently exhibit to you, and upon which I intend to rely for my description, I believe the non-congenital origin of

this deformity sufficient to explain the difference adverted to. In Dr. Little's lectures, page 280, a drawing has been added to show the relative position of the bones in severe adult congenital varus, but in this drawing the navicular bone is made to extend in an almost semicircular form, from the outer border of the head of the astragalus to the inner malleolus; and the cuboid bone is represented as of a wedge-like form, having a very extended base corresponding to the outer border of the foot, and a narrow apex directed towards the head of the astragalus and the navicular bone. These two facts are so completely opposed to the form and relative position of the same bones in all the specimens I have examined, and also to the normal form of these bones, that I can scarcely suppose the artist to have given a faithful representation of the specimen, and therefore reject the engraving from our reliable sources of information.

Judging from the description given by some of the earlier orthopædic authorities of the Continent, there can be no doubt that specimens of adult congenital varus have been dissected, but from the discrepancies which exist, there can be little doubt that the congenital and non-congenital forms were not always recognized.

Cruveilhier,(a) in his splendid work on Pathological Anatomy, has figured several views of a dissected club-foot, said to be congenital talipes varus from a woman aged 41, and described the condition of all the soft parts; but I have no hesitation in stating that Cruveilhier must have been deceived with regard to the congenital nature of this deformity. There can be little doubt that this specimen is an example of non-congenital talipes equino-varus of paralytic origin, and the account given of the extreme wasting and degeneration of all the structures very strongly confirms this opinion. The muscles were all in an advanced stage of fatty degeneration. The nerves extremely small, "we should have thought almost reduced to their neurilemma;" arteries not half their natural size, &c. But the general form of the foot, and the relative position and form of the bones would be quite sufficient to base my opinion upon, irrespective of the soft tissues. Rejecting this specimen, therefore, at present, I shall hereafter allude to it in its proper place. Cruveilhier has also figured the bones of several cases of talipes varus at different ages; and the relative position of the bones in an adult case, Plate IV. fig. 1, will be found very closely to correspond with the specimen I now exhibit to you, fig. 38.

So far then as I know, there is no dissected specimen in any museum from which a reliable account of adult congenital varus can be drawn, nor am I aware of the existence of any drawing in any English or Continental work exhibiting the anatomical relations of the bones, ligaments, tendons and muscles.

I should, therefore, have been at a loss to know what to rely upon, if accident had not afforded me an opportunity of studying the morbid anatomy of adult congenital varus upon a beautifully dissected specimen of this deformity formerly in the possession of Mr. Bishop, but which, through his kindness, I have been recently enabled to add to my collection. This specimen which I now exhibit to you consists of the right foot and leg (below knee) of a washer-woman of about 30 years of age, who was born with a club-foot. She suffered from intractable ulceration from pressure on the dorsum of this foot, which was therefore quite useless to her and became a troublesome burden; and at her own request the limb was amputated by a Surgeon about 14 years ago, a personal friend of my own, now practising in the neighbourhood of London; but she unfortunately died after the operation. The specimen has been most carefully dissected, so as to exhibit the relative position of all the tendons, muscles, ligaments and bones, and has been preserved in a dried condition. Now, from the reliable history of this specimen, the nature of which is also confirmed by its close resemblance, as far as the bones and ligaments are concerned, with the existing specimens of adult congenital varus in our museums, it appears to me that I may safely rely upon it for a description of the anatomical conditions of talipes varus in the adult. I therefore propose to draw my description mainly from this specimen, and although in the examination of other adult specimens you may find some minor points of difference, as I have myself observed, still I believe you will find it faithfully to represent the ordinary and essential condition of parts in this deformity, as it exists in the adult.

(a) Anatomie Pathologique. Tome i. planche 3. 2e Livraison.

By the way, I may as well mention, that, as this is the only specimen, at least, so far as I know, from which the morbid anatomy of adult congenital varus can be demonstrated; if any of you should have the opportunity of obtaining a similar specimen from any Union practice you may be connected with, or other source, I hope you will do so, as it will every year become less possible to obtain specimens of club-feet which have not been operated upon.

I propose to follow the same order in the description of this deformity in the adult, as that which I adopted in describing the morbid anatomy of infantile varus.

I mentioned to you in the last lecture, as a fact which I have proved by dissection, that in a severe case of talipes varus at the period of birth, the bones and ligaments are found already to have adapted themselves, during their intra-uterine growth, to the deformed position of the foot; that this adaptation necessarily involves considerable alterations in form of the astragalus, and that to such an extent does this take place in the rigid and severe cases occasionally met with, that the fœtal astragalus presents all the essential deviations in form met with in the adult.

The effect of allowing the deformity to remain unrelieved, must necessarily be, that during the growth and ossification of the bones, all the deviations in form which I have described become confirmed; and the ligaments, also, in their adapted growth most materially tend to render the deformity permanent and incurable. It is to be observed also that the bones do not grow at their normal rate, or attain their full proportionate development; nor do they acquire their natural degree of density; they remain thin-shelled, light, cancellous, and fatty. These changes result from a generally defective state of nutrition, constantly present in the legs of club-footed individuals, and adverted to in the previous lecture, when I described the *atrophied condition* of the leg met with in the adult.

In adult congenital varus, the following conditions, I believe, will be generally met with, and are well marked in the specimen I now exhibit to you—Figs. 36, 37, and 38.

Bones.—Speaking generally, all the bones of the foot, as well as those of the leg, are light and small; the edges, grooves, and natural markings are rounded and ill-defined. The tarsal bones are thin-walled, except in those portions through which the weight of the body has been directly transmitted to the ground, viz.:—the head of the astragalus, external part of navicular bone, anterior extremity of os calcis, and the dorsal surface of the cuboid bone, which, in its altered position, looks directly downwards. In these situations, the surfaces of the bones are somewhat thickened, irregular and mammillated in appearance.

The os calcis is altered in position to an extreme degree, and also much altered in form. In consequence of the contraction of the tendo Achillis, or rather of the muscles which terminate in it, the tuberosity of the os calcis is elevated, so that this bone occupies a very oblique, or nearly vertical, position, Fig. 36, in which it is rigidly held by the retraction of the muscles of the calf, and adapted shortening of ligaments, more especially the posterior ligamentous bands of the ankle-joint, as shown by some dissections of Mr. Lonsdale. This bone is not simply elevated, but has also a marked degree of lateral obliquity, so that its tuberosity occupies a position immediately behind the fibula, see Fig. 37. I do not detect any lateral rotation inwards or outward of the os calcis.

Fig. 36.

Congenital talipes varus in the adult—Lateral aspect—Outer side of the leg.

The tuberosity of the os calcis is seen to occupy this position in all the specimens existing in our museums, to which I have alluded; and in the articulated foot in St. Thomas's museum it is extremely attenuated and misshapen, and in actual contact with the fibula.—See my description in Transactions of the Pathological Society, Vol. 3. The tuberosity is generally of small size, and somewhat misshapen.

The superior surface of the os calcis is in contact with the posterior border of the articular surface

of the tibia, its outer portion, and also with the fibula, both of which rest upon it, so that the os calcis appears to enter into the composition of the ankle-joint. (See Fig. 36.)

Fig. 37.

Posterior aspect of same case as Fig. 36.

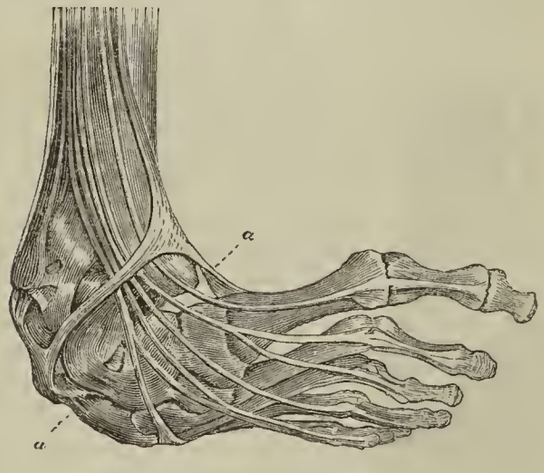
On its outer surface, the grooves for the peronei tendons are much less oblique than natural; the tendon of the peroneus longus muscles passes directly from the outer round the inferior surface of the bone, to gain to the sole of the foot. (See Figs. 36 and 37).

On its inner aspect, this bone is much misshapen. The projecting lip-like process—sustentaculum tali—is very irregular, and presents on its anterior and under surface in this specimen a flattened and elevated articular surface, which rests upon a similar new articular facet on the under surface of the cuboid bone, which, in its displaced condition, looks directly upwards. A portion of the weight of the body had been thus transmitted through the os calcis to the cuboid bone.

The anterior articular surface of the os calcis is left exposed to two-thirds or more of its extent by the lateral displacement of the cuboid bone (Fig. 38). The os calcis may perhaps also be said to be slightly curved in the direction of its length, the convexity being outwards, in adaptation to the curved direction of the foot; but this deviation is scarcely appreciable in this specimen.

The astragalus is much more altered than the os calcis, both in position and form. This bone is completely vertical in position (Fig. 36), only a portion (about half) of *its superior articular surface*, together with its posterior border, which is attenuated and wedge-like, entering into the composition of the ankle-joint; the anterior half of this surface has been extruded from the joint and is exposed on the dorsum of the foot (Fig. 38.)

Fig. 38.



Anterior aspect of same case as Figs. 36 and 37.

The extruded portion presents an irregularly flattened appearance, and is separated from the posterior half by a transverse line, or angle of junction of these two surfaces, the aspects of which are different, the posterior looking upwards and the anterior directly forwards.

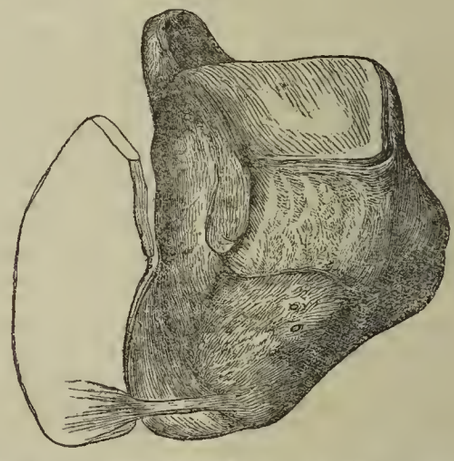
The head of the astragalus is ill-developed and much misshapen (Figs. 38 and 39.) Instead of presenting a regularly convex surface directed anteriorly, it has two articular facets at right angles to each other, and divided by an abrupt line or angular ridge; one, the larger, looking directly inwards and articulating with the displaced navicular bone; the other, looking directly downwards, has been left exposed by the altered position of the navicular bone, and is covered only by the elongated portion of the ligament normally passing from the neck of the astragalus, which, in this bone, is very ill-defined, to the edge of the navicular bone.

The articular surface for the external malleolus is separated from the fibula downwards and forwards, but is still very distinctly traceable; and the external lateral ligament passes across it (Fig. 36).

The *articular surface for the internal malleolus* is not generally distinct, and there is often no indication of its having existed. The inner side of the astragalus is not in contact with the inner malleolus in the specimen I now exhibit to you, but is separated from it by the deltoid ligament, which appears to have been folded inwards towards the joint, and pressed upwards by the navicular bone, the tuberosity of which is directed in this specimen rather between the fibula and the inner side of the astragalus, than directly against the inferior surface of the malleolus, its more usual position.

The posterior border of the astragalus, instead of being thick and obtusely rounded, is attenuated and wedge-like, in consequence of its being compressed between the elevated os calcis and the articular surface of the tibia. It is not visible in this foot externally, and, of course, the groove for the flexor pollicis tendon is absent. There is no appearance of any lateral twisting or rotation of the astragalus in the specimen (Fig. 38). Rotation inwards is generally described; but in fœtal specimens I have observed rather an inclination to rotation outwards, as previously mentioned.

Fig. 39.



The astragalus from a severe adult case of congenital Talipes varus in St. Thomas's Museum. The navicular bone is drawn in outline, and the lateral position which this bone occupies with respect to the long axis of the astragalus is thus exhibited.

The navicular bone is altered in position to an extreme degree, but very little in form (Fig. 38 and 39.) Its internal extremity, or tuberosity, is drawn completely under the inner malleolus, and sometimes very much within its external boundary. The inner malleolus generally rests upon the tuberosity of the navicular bone, thus transmitting to the ground a portion of the weight of the body, and a flattened articular facet is formed on each bone. This condition exists in the specimen in St. Thomas's Museum (Fig. 39), and a flattened square surface on the upper part of the navicular bone is represented; but in this specimen (Fig. 38) the navicular bone is drawn more towards the ankle-joint, and within the boundary of the malleolus than usual, so that its tuberosity is directed rather to the space between the inner malleolus and the astragalus, than directly under the malleolus (Fig. 38). The new articular facet is, therefore, less distinctly marked in this case than usual. The inner malleolus has, in this case, rested chiefly upon the inner cuneiform bone, but partly also upon the navicular bone. About the inner, or, in its present position, the superior half of the posterior articular surface of the navicular bone, lies closely in contact with the

neck and inner side of the astragalus, and is somewhat altered in form, but not to any considerable extent; in other respects this bone remains unaltered in form.

The general direction of the long axis of the navicular bone, is, you will perceive, quite vertical, like that of the astragalus, with the body and part of the head of which, in its distorted form, it is in direct lateral relation. The long axes of these two bones are, as near as may be, parallel, instead of being at right angles to each other, as in their normal relations. This relative position constantly obtains in all severe cases, whether infantile or adult, and is of the utmost importance to bear in mind in deciding upon the direction in which mechanical force is to be employed for the cure of the deformity.

The navicular bone is drawn into the position I have now described to you, chiefly by the active contraction of the tibialis posticus muscle, which—after the elevation of the heel and extension of the foot by the contraction of the great muscles of the calf—acts in a direct line, so as to draw the tuberosity of the navicular bone, into which it is inserted, directly upwards and inwards till it comes in contact with the under surface of the inner malleolus. The tibialis anticus; and in severe cases the extensor and flexor pollicis and the flexor longus digitorum muscles also assist indirectly, but very powerfully, in causing this displacement of the navicular bone by drawing the inner margin of the foot upwards and inwards simultaneously with, or subsequently to, the extension of the foot and elevation of the heel by the muscles of the calf.

The Cuboid bone deviates very considerably in position, and is also a good deal altered in form. It is displaced laterally inwards from its articulation with the os calcis so as to leave at least two-thirds of the anterior articular facet of the os calcis uncovered, except by elongated ligamentous bands, which still serve to connect these bones, Fig. 36 and 38. The cuboid bone retains its articular connection with the navicular bone—in the specimen I exhibit to you, this connection is even greater than is generally seen in the healthy condition—and follows it in its lateral displacement, inwards and upwards, till checked by the sustentaculum tali on the inner side of the os calcis with which it forms a new articulation. In the present instance, a flattened and expanded articular surface exists on the corresponding part of each bone, and by this means a portion of the weight of the body has been directly transmitted to the ground through the os calcis and cuboid bone. As the navicular bone, by its lateral displacement, leaves the outer portion of the head of the astragalus exposed; so does the cuboid, by its lateral displacement, leave a considerable portion of the anterior articular surface of the os calcis exposed, and both these uncovered articular surfaces look directly downwards and come in contact with the ground in the act of progression.

It is important to notice the fact that the cuboid bone is displaced bodily inwards from the anterior articular surface of the os calcis; because other observers describe only a separation of these bones externally, or widening of the articulation, so that "a space between them externally is left."

The cuboid bone also, in some degree, undergoes a movement of rotation backwards, inwards, and upwards, the effect of which is to make its superior or dorsal surface look more directly downwards, so that it comes flatly in contact with the ground, in the erect position of the body; and as this bone in its displaced position is somewhat below the level of the other tarsal bones (Fig. 38), it must necessarily sustain the greater part of the superincumbent weight. While the dorsal surface of the cuboid bone, in its altered relations, looks directly downwards, the inferior or plantar surface looks obliquely backwards and upwards.

The great alteration in position of the cuboid bone above described, is not the result of any direct muscular action, as no tendon is inserted into, or is even in contact with, this bone. The tendon of the peroneus longus in this specimen is seen to pass transversely inwards, across the inferior surface of the os calcis, and thence directly across the sole of the foot, to its insertion (see Fig. 37), above the level of the cuboid bone, and without any connexion with it. You will remember I told you that in infantile varus "the cuboid bone is but very slightly altered, either in position or form;" and, therefore, it appears to me that its alteration in position essentially depends upon the influence of the superincumbent weight.

Alteration in Form.—The cuboid bone, in its displaced position, becomes somewhat wedge-like from below upwards; or, speaking with reference to the normal relations of its surfaces, the long axis of its inferior or plantar surface becomes less, instead of being greater than that of its superior surface; it is so in this specimen, but not to any considerable extent, nor have I seen it assume any well-marked, wedge-like, or conical form in any specimen I have examined. The dorsal surface of this bone is more convex than natural, and its edges are rounded. On its external border and inferior surface—in the normal relations of the bone—we observe only a slight indication of the groove for the tendon of the peroneus longus, which, in this specimen, has never lodged in, or been in contact with it, as above explained.

The cuneiform bones retain their normal relations to the navicular and cuboid bones, and to each other. All these five tarsal bones move *en masse* in the same direction, inwards and upwards—after the complete extension of the foot by the elevation of the os calcis—from the great transverse tarsal joint in front of the astragalus and os calcis (see Figs. 36 and 37, dotted line *a a*). In some very severe cases, as in the present specimen, the internal cuneiform bone is drawn under the inner malleolus, and articulates with it (see Fig. 38). In this specimen there is upon the superior surface of the inner cuneiform bone, in its altered relations, a flattened, elevated, and smooth articular surface, upon which the inner malleolus chiefly rested; but this process also rested, in part, upon the tuberosity of the navicular bone. The dorsal edges of the cuneiform bones are all rounded, and thus the appearance of separation of these bones externally is very much added to.

The metatarsal and phalangeal bones deviate to an extreme degree in their normal directional relations with respect to the leg; but they retain their normal articular relations with the cuneiform and cuboid bones, and with each other. These bones, which collectively make up the anterior half of the foot, are, in this deformity, placed laterally, at right angles with the leg on its inner side, or even beyond this in very severe cases, as in the present specimen, and have also in such cases an inclination backwards. It is this general direction of the anterior half of the foot which gives the external character to the deformity, but you will at once perceive how essentially this depends upon the really more important, though less obvious, deviations in position which I have described as taking place in the tarsal bones.

The metatarsal bones, holding their normal relations with the cuneiform and cuboid bones, pass directly upwards and inwards—the extension of the foot having previously taken place, as I have before insisted upon—with an inclination backwards.

This movement, though very much depending upon the lateral displacement of the navicular bone by the contraction of the posterior tibial muscle, and also upon the lateral displacement of the cuboid bone, is most materially aided by—if indeed it may not be said directly to depend upon—the contraction of the tibialis anticus, and the extensor pollicis muscles.

The fourth and fifth metatarsal bones are so displaced in the altered relations of the anterior part of the foot to the leg, that their dorsal surfaces look directly downwards, and rest flatly upon the ground, forming, together with the dorsal surface of the cuboid bone, the most prominent part of the very imperfect and irregular base of support which the club-footed adult possesses. These bones retain their normal relations to the cuboid bone, and in the present specimen are not at all separated from their articular connections with this bone.

The abnormal direction of these bones mainly depends upon the lateral deviation of the cuboid bone taking place as above described subsequently to the elevation of the os calcis; it is increased, however, by a slight amount of rotation of the cuboid, which movement of rotation from before, backwards, is also extended to the fourth and fifth metatarsal bones, more especially to the fifth, by the distribution of the weight of the body on the outer edge and dorsum of the foot, in the acts of progression.

Transverse arch of the foot.—The effect of the displacement of the fourth and fifth metatarsal bones above described, may be in some degree too narrow, or compress the transverse arch of the foot by approximating the fifth to the first metatarsal bones as their bases; but as far as I can judge from this and the other specimens of club-foot which I have examined, it appears to me that this result has been generally exaggerated by authors. In the present specimen, which is one of extreme severity, if the leg be turned upside down and the foot examined only with reference to the transverse arch formed by the tarsal bones, anterior to the astragalus and os calcis, and by the

metatarsal bones, it would be difficult to say that any increase of the transverse arch of the foot exists. I cannot say that it does, although if we again restore the leg to its upright position, we see that the fourth and fifth metatarsal bones have been carried so far backwards that the aspect of the sole of the foot is very decidedly upwards and backwards. The appearance of a narrowing of the transverse arch appears to me to be greater in the living foot than is shown by any of the dissected specimens. Therefore I think it depends very much upon the condition of some of the soft parts.

The phalanges remain unaltered in their general direction and form, with the exception of the last phalanx of the great toe, but the toes generally assume, in some degree, a claw-like form, in consequence of the first phalanx of each toe being extended by the action of the extensor longus digitorum, and the second and third phalanges being flexed by the action of the flexor longus digitorum muscles. This form of the toes gives them a life-like appearance, and you will remember I alluded to its existence in a very marked degree, in cases of spasmodic equinus, and to its absence in paralytic equinus; it is also absent in the non-congenital varus when of paralytic origin, which is almost constantly the case in this variety.

The last phalanx of the great toe I have observed to be very much misshapen in every specimen of adult congenital varus I have examined; it holds its normal articular connexion with the first phalanx, the surface of which is unaltered, but the last phalanx itself has an oblique and twisted direction downwards (Figs. 37 and 38), an alteration of form which probably results from the early and long continued pressure of the boot worn by the individual.

Transverse relations of the malleoli.—Having now described the changes in position and form observed in the bones of the foot, it only remains, in completing the account of the osteological changes in this deformity, to advert to some peculiarities in the articular extremities of the tibia and fibula. The observations I have previously made, in reference to the transverse relations of the malleoli, etc., in infantile varus, are mostly applicable to the adult condition.

Inner malleolus.—In cases of adult varus, we observe in the living foot a great deficiency in the natural prominence of the inner malleolus, and this process also appears to be carried forwards very much in advance of its natural position with respect to the foot. The want of prominence is not due to any deficiency in the size of this process, but rather to the fact of the navicular bone—and sometimes the inner cruciform bone also, as in the present instance—being drawn inwards and upwards, so as to come into immediate contact with it, and thus destroy its relative prominence to the neighbouring parts.

In explanation of the apparently forward position of the inner malleolus, it is said that the lower extremity of the tibia becomes twisted, so as to bring it into this position, and in some very severe cases I think this really does occur to a slight extent; but generally I believe this condition to be a deceptive appearance rather than a real change in the articular extremity of the tibia. There is certainly very little, if any, twisting of the lower extremity of the tibia in the leg I now exhibit to you, yet the advanced appearance of the inner malleolus is very obvious. The direction of the malleoli must not be judged of by their relations to any part of the foot, on account of the lateral obliquity of the os calcis, the tuberosity of which is always directly behind the fibula, but it must be judged of solely in reference to the axis of the leg, and the shaft of the tibia. The spine of the tibia answers very well as our guide in the present instance, and you may here observe that the posterior surface of the tibia is brought, by the lateral obliquity of the os calcis, and inclination backwards of the anterior part of the foot, into what you might regard, upon a superficial examination, as the lateral aspect of the leg—you certainly would do so if you held the os calcis in your hand, and looked from behind forwards; or say if the leg were laid on the table in the position in which you would divide the tendo Achillis. I insist upon this point, because I believe it to be of direct practical importance in reference to the relative situation of the tendo Achillis, the posterior tibial tendon, and the artery.

In form, however, the inner malleolus may be said to be generally rounded. The posterior edge of the tibia is not well developed, and the groove for the posterior tibial tendon—shallow in this instance but deep in others—passes obliquely forward, cutting off, as it were, the posterior inferior angle of the malleolus, when this process is viewed from its lateral aspect.

The inner malleolus is also shorter than natural, and generally presents on its inferior surface a flattened articular facet which articulates with the navicular bone, on which a similarly flattened surface exists. In the specimen I am now particularly describing the inner malleolus has rested both upon the navicular and the inner cuneiform bones, but chiefly upon the latter. The posterior part of the inner malleolus has rested upon the inner cuneiform bone, and the anterior and inner part of the malleolus upon the navicular bone. In the latter situation a cup-like depression exists on the inner malleolus, but a portion of the deltoid ligament appears still to cover the surface of this depression; and it is somewhat remarkable that where the inner cuneiform bone—which presents a large flattened and somewhat prominent articular facet—has been in contact with the posterior part of the inferior surface of the malleolus, the posterior tibial tendon has intervened, and is now to be seen in a flattened expanded condition, folded inwards and covering the corresponding portion of the malleolus. In this specimen, therefore, although the inner malleolus has articulated with, or rather rested upon, two bones, this process does not exhibit very distinct articular facets, in consequence of the intervention of the deltoid ligament in one instance, and of the posterior tibial tendon in the other.

The outer malleolus presents generally a rounding of its edges, and the groove for the peronei tendons is very shallow. The tendon of the peroneus longus has been drawn rather away from than into this groove, in consequence of an inclination backwards which it takes to gain its groove on the outer surface of the os calcis. (See Fig. 36.) The posterior surface of the outer malleolus rests upon the upper surface of the os calcis. Whether any articular connexion exists cannot be seen, but a little dried ligament appears to intervene. The posterior edge of the adjacent portion of the tibia really seems to have an articular connexion with the os calcis, which, as I have explained, is drawn upwards between these bones.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

(Selected by Authority of the Director-General from Documents in the Office of the Army Medical Department.)

No. XXVI.

OBSERVATIONS ON THE STATISTICS OF FEVER AS THEY AFFECT SOLDIERS, OFFICERS, WOMEN, AND CHILDREN IN INDIA.

By CHARLES ALEX. GORDON, M.D.,
Surgeon 10th Regiment of Foot.

Fevers constitute one of the most important classes of disease to which our soldiers and their families in India are liable, whether we consider the frequency of their attacks or regard the numbers who annually fall their victims.

These two points will be best illustrated by the subjoined tabular statement, in which are included all cases of the various types of fever that occurred in the 10th Regiment during a service of thirteen years in Bengal and the North-western provinces of India. From it we learn, that

	Per cent.		Per cent.	
Among soldiers	53·25	had fever, and	2·88	of treated died.
,, officers	69·19	,, ,,	1·41	,, ,,
,, women	34·34	,, ,,	4·63	,, ,,
,, children	16·91	,, ,,	11·33	,, ,,

Thus showing the somewhat unexpected fact that among officers, who manifested the greatest liability to fever of some form or other, mortality from this cause was at its *minimum;* while among children, who were comparatively exempt from diseases of this description, mortality among those affected was at its *maximum.*

Particular Forms of Fever.	Soldiers. Strength, 11,780.				Officers. Strength, 409.				Women. Strength, 1191.				Children. Strength, 1460.			
	Cases admitted.	Deaths.	Deaths per 100 treated.	Cases per 100 strength.	Cases admitted.	Deaths.	Deaths per 100 treated.	Cases per 100 strength.	Cases admitted.	Deaths.	Deaths per 100 treated.	Cases per 100 strength.	Cases admitted.	Deaths	Deaths per 100 treated.	Cases per 100 strength.
Feb. int. quot.	1151	6	..	..	22	..	..	..	109	..	..	..	65	3	..	..
,, ,, tert.	521	..	0·35	14·19	26	..	..	11·73	21	..	..	11·08	9	..	4·54	5·06
,, remittens	550	49	8·90	4·66	17	2	11·76	4·15	48	9	18·87	4·03	17	6	35·29	1·16
,, cont. com.	4044	123	2·72	34·24	218	2	0·91	53·30	332	10	3·01	27·87	156	19	12·18	10·68
,, typhus	7	3	42·85	0·05	..	..	..	..	..	..	..	..	..	..	..	..
Totals	6273	181	..	..	283	4	..	..	410	19	..	..	247	28	..	..

Fevers as a class are much influenced by the geographical position and local peculiarities of particular stations, as well as by season (a). Thus, those of the intermittent and remittent types prevail among regiments in Bengal during the months of July, August, and September, this being the periods when the heavy rains fall, at the commencement and termination of which the greatest number of cases occur, just as the ground is becoming saturated, but is not completely so, and then again as evaporation has progressed to a certain degree.

In the succeeding months of October and November, during which the noon-day sun is still powerful, but the nights and early morning very cold, these diseases continue to prevail to a considerable extent; and it deserves to be noted, that, on the two occasions when intermittent fever prevailed as an epidemic, it did so during these months.

The advent of the cold season in India does not immediately put an end to the occurrence of fever, more especially of the intermittent type. On the contrary, the sharp biting cold of the morning chills the soldier as he goes on parade, induces a return of his attacks, nor is it until the cold season is well advanced that we discover any decided improvement in this respect, and not until the months of January, February, and March that the number of "ague" cases undergo a temporary diminution, again to be augmented on the setting in of the intense heat.

In continuing the observations I am desirous to make on some points connected with the statistics of individual types of fever, as they occurred in the Hospital under my charge in India, the most convenient method seems to be to follow the nomenclature adopted in the table, and 1st,—then, regarding—

Intermittent Fevers.—The number of admissions from quotidian intermittent fever, as compared with tertian, are in the above tabular form rendered very evident; and did the limits to which this paper must be restricted permit, a figured statement might be given to show that great variety existed in the extent to which intermittent fevers prevailed at the different stations where the 10th regiment was quartered, during its tour of service in India.

During the first year the regiment was in India, namely, in 1842-3, it having been stationed in the fort of Calcutta, as many as fifty cases of intermittent fever occurred, all except one being of the quotidian type. In the two following years, during which it continued to occupy the same barracks, the admissions from this cause diminished considerably, but again increased during a long march, and the exposure incidental to active service in the field.

The history of the regiment, moreover, proves that, on two occasions, namely, 1850-1 and 1851-2, intermittent fever prevailed in the corps as an epidemic, and that as its length of service in India increased, so did the liability of the soldiers to become attacked with "fever and ague."

In both the years alluded to, a larger quantity of rain than usual fell, but the thermometer did not indicate any remarkable difference of temperature from that of corresponding months of previous and succeeding years. In fact, as in most other epidemics, the physical causes upon which it depended may be said to have been inappreciable by our means of observation.

As a general rule, it may be said that by so much the intervals between individual accessions of intermittent fever are diminished in length, so does the type approach the remittent. It is thus found that quotidian intermittent not unfrequently degenerates into this more severe and dangerous form, while the conversion of remittent into quotidian intermittent fever is always to be hailed with satisfaction.

It is, moreover, found in India that fevers of the intermittent and remittent types prevail simultaneously in regiments, and these circumstances tend to support the presumption of the affinity of the two forms, as well as their dependence on allied or identical causes.

It will be observed, that attacks of quartan fever are not noted in the numerical abstract given. It is not to be supposed from this, however, that such cases never occur in India. They do sometimes come under observation, but as compared with other types are exceedingly rare.

Erratic attacks, that cannot with propriety be referred to any of the acknowledged types, are very common among soldiers who have for several years been subject to the ordinary forms; the accessions occurring at such irregular intervals, and under such various circumstances as to defy classification.

In India, the first illness the newly-arrived has may be intermittent fever, but in some other climates, as, for instance, the Gold Coast of Africa, he must, in the first place, undergo a regular attack of the ordinary endemic fever of the locality. It matters not if the person should have on previous occasions suffered from intermittent fever in tropical countries, he must first suffer from the peculiar form of fever prevalent at that particular station, but having done so, then an attack of "fever and ague" becomes actually a subject of congratulation, as it would seem as if morbific influences, that might otherwise give rise to an attack of serious illness, resolve themselves into an attack of this nature.

Remittent Fever.—The mortality in India from this form of fever is very great, throughout all classes, yet falls so unequally upon them as almost to justify the impression that some, as the wives and children of soldiers, are especially marked out as its peculiar victims, for a glance at the statistical table will be sufficient to show how much more fatal it is among them than among either soldiers or officers.

Although both remittent and intermittent fevers prevail during the same seasons of the year, the former may be said to set in about a month after the latter; its maximum occurring during August, September, and October.

The fact, too, that some persons are more liable than others to attacks of this form of fever, and indeed, to other forms of disease, is well known; and the circumstance is but partially accounted for by referring it to peculiarity of constitution, or by saying that the power of the system to resist morbific agencies is greater in some individuals than in others. Be this as it may, it is indubitable, that of two persons who may be equally exposed to the ordinary causes of endemic fever, one becomes speedily seized with that disease in its most virulent form, while the other escapes with only slight headache, or perhaps no indisposition whatever.

One of the most powerful predisposing and often exciting causes of remittent fever, is the system until very lately, if

(a) See report by the author in the *Medical Times and Gazette*, No. XV., New Series, 14th January, 1854, and also one on "Remittent Fever of Bengal and West coast of Africa," in *Indian Annals of Medicine*, for April, 1855.

not still, followed in some Indian regiments, of issuing an allowance of ardent spirits to the soldiers at noon (b). They then rush from their barrack-rooms to the canteen in the blazing sun, and while the hot winds are blowing with a temperature of 140° F., or the air rendered oppressive by the stillness and electric tension that precede a storm. The allowance of spirits hastily swallowed, they return to their quarters exposed once more to the same set of meteorological influences; throw themselves down on their cots to fall asleep; awake in the afternoon hot, unrefreshed, suffering from headache and indisposed; and before the following morning are brought to hospital in a state of delirium from fever, or insensible, with contracted pupils, suffused eyes, stertorous breathing, and intense epigastric heat, of what is called apoplexy of the hot winds; for it is impossible to define where the one disease terminates and the other sets in, or to say if they be not mere modifications of the same morbid condition.

Common continued fever.—Under this head are included in Military Medical Returns a class of disease varying in severity from the slight ephemeral attack of pyrexia, lasting, perhaps, no longer than a single day, to the low, tedious, and exhausting form of fever which, after reducing the vital powers to the lowest possible ebb compatible with bare existence, destroys them completely in from twenty to thirty days, or leaves the patient in such a state of debility, and predisposed to so many other diseases, that even should he escape the various dangers that assail his convalescence, months, or it may be years, must elapse before his health becomes again restored.

The forms of fever that have hitherto been considered are peculiarly diseases of the rainy and early part of the cold season; this form, however, chiefly prevails during the intensity of the dry heat, the majority of cases recorded having occurred during the months of April, May, and June. Under certain circumstances, however, its prevalence may attain its *maximum* during other periods of the year.

It is painful to consider that the rewards sometimes given by a liberal government, to troops who have been the means of bringing a campaign to a successful termination, may themselves prove a fertile cause of fever, as well as of some other diseases, claiming nearly as many, if not a quite equal number, as those who may have fallen honourably on the field of battle. For instance, the 10th Regiment, in the action at Sobraon, on the 10th of February, 1846, lost in killed 29 men, in addition to 136 wounded, of whom six subsequently died in the Regimental Hospital. During 1845-46, the deaths from fevers of all kinds were 21. In the succeeding year, namely 1846-47, the fatal cases of fevers amounted to 53, and of this number, 40 occurred during the months of July, August, and September.

In reference to this great mortality, we find, in the Hospital records, that suspicions were entertained that the drunkenness and exposure must have had a share in the sad work of destruction, as it was about this period that the Government donation batta (for Sobraon, etc.) was distributed. If, then, in this instance the supposition be allowed that of the 53 deaths that took place from fever in the 10th Regiment one half were solely attributable to the endemic influences which seem, in other seasons, to have given rise to the malady, it may, with equal propriety, be believed that the other half were occasioned by the drunkenness in which the men were enabled to indulge by the distribution of batta.

The fact becomes, therefore, worthy of attention, that while the number of killed among one regiment at one of the most sanguinary of our Indian battles was only 29, no fewer than 26 lost their lives by only one form of disease, that more or less directly originated in consequence of the pecuniary rewards given for their services on that occasion.

A very fertile source of intermittent fever among soldiers in India is the system sometimes adopted by regimental officers of protracted morning parades, with or without drill, by which the men become exposed to the early sun; for it must be remembered, that there that luminary rises with an intensity of heat that cannot be understood by the more fortunate resident of this favoured climate.

Much also depends upon the amount of uninterrupted rest the soldier is permitted to enjoy during the tedious and exhausting days of the hot season. If, after morning parade, they have to answer check-rolls several times a-day, are at all hours employed in cleaning accoutrements, arranging, or altering the arrangement of their barrack-rooms, not permitted to lie down upon their cots, deprived of the amusement they might derive from indulging in innocent games, not encouraged to read, and by some of these means wile away the weary hours that must elapse before the hour when, tired and exhausted by climate and *ennui*, they assemble at evening parade, it must be clear to any person that, under such circumstances, although the duty to be performed is in itself so slight as to appear of little moment, yet it operates upon the system as the continual dropping of water does on the flinty rock.

There being no cessation to enable the powers to recover themselves, they undergo a gradual process of decay, become susceptible to comparatively slight causes of disease—of which that of fever is the most frequent—and then, the constitution once broken, the progress of the soldier to his grave is, in too many instances, as rapid as it is sure.

Fevers of a typhoid or typhus type are very rare, indeed, as idiopathic diseases among soldiers in India; but that cases do occasionally occur, is shown by the numerical return at the commencement of this paper. The principal cause of this infrequency of the disease is, no doubt, to be found in the cleanliness and free ventilation, as well as the ample space allowed to our troops in that country.

Among some classes of natives, however, as those inhabiting certain hill-districts, whose habitations are filthy, confined, and ill-ventilated, and their own personal habits the most dirty conceivable, epidemics of a very severe form of typhus, almost in intensity approximating the Plague, occasionally devastate whole tracts of country.

The few cases that occurred in the 10th Regiment were clearly traceable to over-crowding and want of ventilation, and happened while the regiment occupied notoriously unhealthy quarters in the citadel of Lahore, which had but a short time previously fallen into our possession.

The bomb-proof buildings in which men were there pent up, had not sufficient means of ventilation, nor did the crowded state of the surrounding buildings admit sufficiently free ingress and egress to the air. The Annual Report for this period, namely, 1847, states that many men were driven into the Hospital by an endemic fever, of the continued and remittent types. Its invasion is marked by great prostration of strength, rigors, and flushings, succeeded by augmented heat of the surface; increased arterial action, and aching all over the body. When taken in time, it yielded rapidly to moderate depletion, antimonials, and quinine.

The fatal cases from this cause were not numerous, and generally resulted in typhoid symptoms.

From this, then, it is evident that, in addition to the cases referred distinctly in the returns to typhus, some persons, who in reality died from this cause, are recorded among the fatal cases of continued and remittent fevers.

Having now referred, in a cursory manner, to some points that seem of interest in their bearings upon the statistics of this extensive and important class of diseases, the few general remarks I have to make upon this subject must be brief also.

In the country of the Punjaub, situated in the north-west of Bengal, extending from about the 29th to the 34th degree of north latitude, and 71st to 78th of east longitude, with an average height above the sea-level of about one thousand feet, and composed principally of recent alluvial deposits, containing a large proportion of salts of potassa and soda, as well as that peculiar calcareous production, called by the natives "kunkur," and extensively used as a kind of natural Roman cement, which it approximates in composition, in this country, which, with the exception of its northern boundary, formed by the mountain range that separates it from Cashmere, presents to the eye one vast monotonous plain, intersected at short intervals by large rivers, the course of which may from a distance be traced by the line of rich and luxuriant verdure that bounds their banks on either side to a considerable extent, but is otherwise dry, and uninviting,—a form of fever prevails during every hot season, which certainly would seem to be peculiar to the district; and that its pecu-

(b) At the latter end of 1855, the new order of the Commander-in-Chief in India, allowing the soldier an unlimited quantity of beer at the canteen and curtailing the allowance of ardent spirits, came into operation in the 10th regiment. Within a week afterwards, the daily consumption of rum had decreased from forty gallons to nine. What a melioration may we not anticipate in both health and morals of the soldier from this measure!

liar characters are, in a greater or less degree, dependent on local influences of a meteorological and terrestrial nature, seems indubitable.

It is not a marsh remittent, neither is it like the violent remittent of lower Bengal; nor yet is it a "continued" fever, although it certainly approximates the latter more than it does either of the others. It is a fever attended by great depression of the nervous and vascular powers, and would be considered analogous to typhus in Europe did petechiæ characterize it, or did the teeth, lips, and tongue become coated over with sordes, neither of which accompaniments are observed. At its onset it presents no symptoms calculated to give rise to the suspicion that a troublesome and tedious, if not fatal attack has commenced, neither do the characters for a time appear different from those of simple pyrexia, with which soldiers are often affected, as the result of short exposure to solar influence.

Its attacks are most insidious, depressing the vital powers, and, if not carefully watched, inducing a state of exhaustion with unusual rapidity, from which it becomes difficult, if not impossible, to rouse the patient; or, should recovery ultimately occur, impairing the energies so that convalescence becomes tedious and imperfect, the patient falling into an anæmic or cachectic condition, with great and continued emaciation, tendency to anasarca, affections of the spleen, and other symptoms of vitiated nutrition.

It only remains to be observed, in reference to fevers in general, as they occur in India, that in cases where the attack has been severe, complete recovery seldom occurs as in this country; the sequences being, in many instances, little if at all less dangerous to life than the original disease. Of these, affections of the spleen are the ordinary consequence of fevers of the intermittent type, especially among soldiers and children; while from remittent and continued fevers, a train of sequences occur, as various in their forms as they are difficult to manage.

Some of the most frequent are mental debility, which becomes in many instances permanent; loss of particular senses, or perverted sensation of particular parts; and local paralysis. Of all sequences, however, chronic rheumatism of the tendinous and muscular parts of the body is the most frequent; and few persons indeed recover from an Indian fever without becoming subject to one or other of these unfortunate occurrences.

August, 1856.

CASE OF HYDROPHOBIA.

By THOMAS P. TEALE, Esq.,
Surgeon to the Leeds General Infirmary.

The attention of the Profession having been much directed of late to the more severe forms of spasmodic disease, it has occurred to me that the following case of hydrophobia, although of a remote date, may probably be read with interest. I therefore venture to publish it, without alteration, as it was written at the time of its occurrence.

James Ripley, kerseymere-printer, aged 26, was bitten in the middle finger of the left hand by a young terrier, on the 8th of January, 1831. The teeth of the animal penetrated the nail, and inflicted two or three deep punctures in the finger. In a few days the wounds healed without suppuration, and were not considered of sufficient importance to require the advice of a surgeon. The man continued to follow his employment, and felt in perfect health for a few weeks.

On Tuesday, February 15, he first felt slight pain in the end of the finger, darting occasionally up the arm to the shoulder, and down to the breast. In other respects he felt perfectly well, and took food as usual. For about five days previously, he had complained of violent itching, confined to a small circular space in the palm of the hand.

On Wednesday, the pains in the finger and arm were a little increased. Appetite good.

Thursday evening.—The pains being more severe, he came to my house to consult me. The cicatrix was carefully examined, but the part was free from swelling or redness, and pressure produced no uneasiness whatever. He complained of numbness in the part, and of pains darting from the finger up the arms, and occasionally extending to the breast. Tongue furred. Slight feverishness.

Ordered leeches and poultices to the finger and hand; the arm to be elevated in a sling; a dose of opening medicine; slop diet; and quietude.

Friday, February 18.—This morning he again called at my house, looking ill; his countenance having an expression of anxiety. He perspired copiously; the tongue was foul. The pain and numbness in the finger, and the pains in the arm and shoulder increased. There was still neither discoloration nor swelling in the finger, nor aggravation of pain on pressure.

Suspecting the occurrence of hydrophobia, my inquiries were particularly directed to the state of the muscles about the neck, throat, and arm, but no deviation from their natural condition was observable. The bowels not having acted, a dose of calomel and jalap was prescribed. He was directed to keep his bed, to have the arm elevated on pillows, and to apply poultices to the finger and hand.

Saturday morning, February 19.—This morning my attendance at his house has been requested, and I find that his symptoms are greatly aggravated. Yesterday the bowels had been freely evacuated; the pains had continued gradually to increase in frequency and violence. In the evening he slept a little, but at midnight awoke in great uneasiness. He complained of the sensation of a ball rising in the throat when he attempted to swallow the saliva, and the effort was accompanied with a gurgling or choking sound. On trying to swallow some liquid, he requested his friends to leave the room, as he could not accomplish it while they were watching him. During the night he slept a little at intervals, but was repeatedly disturbed with the sensation in the throat, which increased in severity. Towards morning the left arm became affected with slight convulsive twitches. At half-past 9 a.m. I find him bathed in perspiration, looking extremely anxious. He is perfectly rational, and has not betrayed the least tendency to delirium. The lower jaw, larynx, and muscles about the throat appear constantly in a state of tremulous motion. The larynx is seen in constant oscillation. He complained most urgently of the pain and numbness in the finger, and of the pains darting thence up the arm to the shoulder, and across the neck and front of the chest on the left side. Great uneasiness is felt in the course of the œsophagus from beneath the larynx as low as the upper part of the sternum, whenever he attempts to swallow; no pain in the head. The symptoms are repeatedly aggravated in paroxysms, which appear to recur spontaneously after short intervals; or may be produced by very slight causes. On suddenly approaching him, or hastily moving the bed-clothes, or waving the hand before the face, an attack of spasm is immediately produced, affecting the throat, lower jaw, and left arm, causing him to spring suddenly into the sitting posture, or to toss himself hastily round in bed. On requesting him to drink some tea which was presented in a cup, a most distressing paroxysm was produced, which continued for two or three minutes. Time being allowed for composing himself, he took the cup into his hand; and, after again waiting some time for a favourable opportunity, he hastily carried the cup to his lips, and instantaneously gulped the liquid. An attack of spasm immediately followed. On being told that it was necessary for him to take a draught of medicine, the mere idea of it produced the convulsive paroxysm; but after being allowed time for composure, he summoned fortitude, and swallowed with difficulty a small draught containing a drachm of laudanum, at 10 o'clock.

The spasmodic affections of the muscles appear momentary and rapid, quickly succeeding each other in different muscles with a rapidity and fugitiveness resembling electrical effects. There is no rigidity whatever in any of the muscles, the arm appears even more flaccid than natural. During the absence of the convulsive paroxysms, he has perfect volition over the arm, and can perform all its movements with the greatest facility. On being requested, he protrudes the tongue perfectly, and can open the mouth widely, even to its fullest extent.

On inquiry, I find that the dog was a young terrier, two months old. It was extremely fat, having been too well fed, and was supposed to be in the distemper, for which complaint the unfortunate subject of this case was administering medicine at the time he was bitten. The dog had been ill three or four days; having shown a great disposition to snap at things within its reach; it would seize parts of the dress, or strings, and pull and shake them in a manner quite unusual to it, and when teazed would snap at any one. It refused meat, but drank as well as usual. It was constantly in a state of shud-

dering or trembling. On the day after inflicting the wound it died.

12 o'clock.—Being convinced that the disease under which the poor man laboured is hydrophobia, and anxious to avail myself of the assistance of such of my Medical friends as I can readily assemble, I am accompanied at this visit by Mr. S. Smith, Mr. Garlick, and my father. The patient is nearly in the same state as at my last visit, suffering intensely from pains affecting the finger, arm, neck, and throat, on the left side, and from convulsive paroxysms in the same parts. He thinks he was a little easier for a short time after taking the draught, but he now looks worse; the countenance is more anxious, and the spasms are more frequent and more easily excited; eyes suffused; pulse 100, moderately full and compressible.

The plan of treatment decided upon is to excite counter-irritation in the occipital and cervical regions, and to place the system under the influence of opium. As the pain is most intense in the finger, and the paroxysms are described as originating there, it is supposed that the removal of the finger may probably prove at least a palliative.

6 p.m.—The finger was amputated; an extensive eschar was speedily produced by rubbing the nitrate of silver, moistened with water, on the skin for about ten minutes, at the occiput, over the neck, and between the scapulæ. Another dose of laudanum was taken at 12 o'clock; and directions were given to repeat it in doses of two drachms every two hours.

Pulse 100, smaller and harder. Since the amputation of the finger he has been quite free from pain in the arm and pectoral region. The spasms in the neck and throat are more severe, and more frequent. During the last hour there has been a copious secretion of saliva which flows from the mouth as he lies on his side. Convulsions are excited by the slightest movement. He suddenly throws the body round in bed or starts erect. Countenance more suffused. Most distressing pain or sense of globus in the œsophagus, extending down beneath the upper bone of the sternum. At 2 o'clock he took, with great difficulty, two drachms of laudanum, and again at four. At present he appears unable to swallow his saliva or any liquid. Great part of the last dose of laudanum was vomited. He continues to be bathed in profuse perspiration, which has rather a strong and offensive odour. There is still not the least rigidity. The larynx and neighbouring parts, particularly on the left side, appear in continual movement. When liquids are mentioned he becomes violently convulsed and entreats most earnestly that they may not be brought near him.

Our principal reliance now resting upon powerful counter-irritation and the administration of opium, it is arranged that the actual cautery shall be freely applied over the parts which had before been rubbed with the caustic. As he is unable to swallow, the opium is to be given by enema.

10 p.m.—At this visit we are accompanied by Mr. Hey. We find him much worse. Pulse feeble and rapid; salivation copious, the fluid being ejected violently from his mouth over the bed. For about half-an-hour after the cauterization he lay quietly on his back and was free from spasm, but the convulsions afterwards returned with great violence, so that the enema could not be given. Face and eyes much injected. He is now incessantly tossing violently about in bed; complains of great agony under the upper bone of the sternum, the parts about the throat are in continual violent movement: difficulty in articulation; he is perfectly rational; says he has not any pain in the arm and left side of the chest. Frequent loud moanings.

Whilst we had retired for consultation, he became worse, and on returning to his room we found the pulse more feeble; he became unable to reply to questions, and appeared unconscious of them. The eyes and face were more intensely injected; lips blue, head retracted; great and rapid variations were observed in the irides, not simultaneous; at length the right pupil became dilated to its fullest extent, while the left was contracted; pulse still more feeble, and life became extinct at half-past ten o'clock. Post-mortem examination not permitted.

In recording this case, I am well aware that to the profession at large it can afford but little novelty. It only adds another to the long and fatal catalogue of victims to a disease which has almost invariably proved fatal.

In a disease which has hitherto baffled the most scientific endeavours, and where remedies the most powerful have proved equally inert, it is right to notice such as even appear to exert but a temporary control. Under this impression, I would particularly allude to the decided although transient relief which followed the use of the cautery, a freedom from spasm for half an hour, which was the only interval of ease from the first occurrence of the spasmodic symptoms until death. I would also notice the immediate and permanent relief of the pains in the nerves of the arm, and of the left side of the chest, after amputation of the finger. Hence I consider the result fully justified the latter proceeding as a palliative, although it is evident, that, from absorption of the poison having already taken place, this measure can scarcely be considered as assisting in a curative point of view.

It is remarkable that this is the only case of hydrophobia which has occurred in the memory of any medical practitioner in the town, ranging over a period of not less than fifty years.

CASE OF IDIOPATHIC PERIOSTITIS.

By JAMES LONG, Esq.

In May, 1839, a young gentleman, of low stature and delicate health, came under my care for supposed disease of the heart, for which he had been taking digitalis and other lowering remedies. The heart affection seemed to me entirely functional, dependent upon derangement of the general health, which existed to a considerable extent. He was at the time pursuing his studies preparatory to entering one of the Universities. By attention to diet, and regulating the alvine secretions, the cardiac symptoms subsided, but a slight teasing cough took their place, attended by slight dulness under both clavicles, especially the right one, and bronchitic râles here and there. Though the alvine secretions were much improved, they still were far from being of a healthy character. He lost flesh, became depressed in spirits, and had perspiration towards the early part of the morning. He continued the hygienic treatment; and, after spending a considerable part of the winter at Torquay, and improving materially in health, he went to college. I did not see him again until two years afterwards, namely, in 1841, when he came to me with an abscess at the side of the anus, which healed rapidly after having been opened. In other respects he was better than when I previously attended him, but was still in a delicate state of health.

During the vacations of 1842—5, I occasionally attended him. At these times he suffered from general derangement of health, viz., night perspirations, debility, irregular action of the bowels, morbid secretions, great distention of the colon, obscure pain in the liver, and nettle-rash. His cough had now almost entirely left him, and the physical signs of disease had all but disappeared. He now had relaxed sore throat with elongation of the uvula; and as he had been ordained, and found a difficulty in reading aloud and preaching, I removed the extremity of the uvula with manifest advantage to him. In the middle of the year 1846, he took a curacy in Cheshire. In the pursuance of his duties he was much exposed to vicissitudes of temperature. His health suffered so much that he was obliged to resign his appointment, and accepted one in Winchester. This he was also obliged to give up, on account of the state of his health, and returned to Liverpool. I again attended him in 1847. He suffered from his former symptoms of deranged bowels, distended colon, etc. The perspirations and attacks of nettle-rash had increased; he was much reduced in strength and bulk. No physical signs of disease now existed in the lungs, but a remarkable enlargement of the pulpy extremities of the fingers had taken place. They were quite unsightly, the nails being rough, ribbed, and incurvated. Under the former treatment, combined with the use of quinine, he improved very much, and accepted a curacy at Tunbridge Wells. He resigned it, in consequence of the state of his health, and came under my care again in July, 1848. He had been up to town, and had had leeches applied, and had taken narcotics and carbonate of iron largely. He suffered now, as he supposed, and had been informed, from tic douloureux on one side of his head.

When I saw him I found the swelling of the fingers gone, and no complaint of the chest-affection. There was a foul tongue, irritable pulse, and all the signs of great constitutional derangement. The face was puffy, and the whole head apparently enlarged; he complained of constant pain on the left

side of the head, with occasional exacerbations of a most excruciating character. I found the whole of the left side of the scalp painful on pressure; the pain extended along the corresponding side of the neck; some of the superficial glands in this region were also enlarged. I examined carefully, expecting to find a point from which the pain radiated, but there was none. He was at this time much troubled with nettle-rash. I concluded, therefore, that this was a case of inflammation of the pericranium, dependent upon a deranged state of the general health,—the "cephalalgia periostea," described by Dr. Burder in 1825. I immediately directed my attention to the state of the secretions, as before; they were most unnatural. By improving them, and administering morphia at bed-time, he rapidly improved; some tenderness remained, which soon disappeared under the use of the iodide of potassium. He took quinine for a short time, and at the end of three weeks was so much improved, that I thought a short stay at Harrogate might be beneficial to him. He went there, and took the waters; they disagreed with him. Whilst at Harrogate he was seized with pain and swelling of the fore-arm and upper arm of one side; this he described as being similar to the pain and swelling on his head. He put himself under treatment, and the new swellings disappeared; a similar pain and swelling now attacked the left tibia, and he returned to Liverpool.

I found his general health improved, the secretions were natural, and appetite fair, the abdomen instead of being prominent, as it had previously been, was perfectly flat. He directed my attention to two soft places, as he termed them, on his skull; these were two spots on the frontal bone on the left side, about the size of a fourpenny-piece, and close together: they seemed to be caused by absorption of the external table of the skull; their edges were well defined, and a fluid existed between them and the detached pericranium. I now examined the tibia, a painful periostial swelling to the extent of a hand's breadth existed, just below the tubercle of the tibia; a considerable quantity of fluid could be felt between the periosteum and bone, and also deeply among the muscles between the tibia and fibula. The pain he suffered from the periostial swelling was so intense, as to deprive him of rest and almost of reason; he had taken morphia, aconite, stramonium and belladonna in large doses, and smoked immoderately with the view of alleviating the pain, but without effect. Nettlerash was also most distressing to him. I tried local remedies, without effect, and also the iodide of potassium, which induced considerable alleviation of his sufferings for about ten days. They then returned. I made up my mind to cut down to the bone on the following morning. During the night, however, without any assignable cause, all the urgent symptoms disappeared, the pain and swelling gradually subsided, he began to eat well and sleep well, and was able to take exercise in the open air. Things thus progressed favourably for a few days, when he began again to feel unwell, having loss of appetite, nausea, headache, sleeplessness, pains and swellings on several parts of his head, and pain and swelling in the dorsum of the left foot. He was now seized with intense vomiting, and ejected an enormous quantity of bile; upon the occurrence of this, all the above symptoms at once subsided.

His strength and appetite improved, the periostial swelling of the tibia, and the intermuscular effusion rapidly disappeared; in fact, from the date of the enormous ejection of bile, all his disagreeable symptoms left him, and he recovered his health and strength, which he has retained up to the present date, attending, however, to his diet and regulating his alvine secretions.

The object I have in recording the above case, which formed part of a clinical lecture on periostitis delivered at the Liverpool Royal Infirmary on the 31st of July last, is to direct the attention of students to a class of periostial affections, described by Sir Philip Crampton in the Dublin Hospital reports of 1818, dependent upon constitutional causes, of neither venereal, gouty, scrofulous, nor rheumatic origin; and also to induce them to read the work of Abernethy on the Constitutional Origin and Treatment of Local Diseases, a work which, along with many others (I may instance Travers on Constitutional Irritation), seems to be almost unknown to the student of the present day. Though not uncommon in private practice, the Hospital student has rarely, if ever, an opportunity of witnessing such cases, and tracing them from their commencement to their termination, through all the phases which they present in their course.

Liverpool, August, 1856.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING MAY AND JUNE.

(Concluded from page 146.)

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seamen's Hospital.

REMOVAL OF NON-MALIGNANT TUMOURS.

Case 1.—University College: Mr. Erichsen.—A woman, aged 23. A large tumour, of innocent nature, was excised from the axilla. Recovery. *Case* 2, 3, 4, and 5.—In these cystic tumours of considerable size were excised from different parts of the body. In all the wounds healed well. *Case* 6.—Guy's: Mr. Cock.—A man, aged 40. Excision of an epulis from the gum. Recovery. *Case* 7.—St. Bartholomew's: Mr. Paget.—A woman, aged 50, under care on account of a large pendulous tumour growing from the upper part of the thigh, and attached by a narrow pedicle. It was ulcerated in one part and had existed for sixteen years. Excision. Recovery. It proved to be fatty and cellular in structure. *Case* 8.—St. Bartholomew's: Mr. Paget.—A woman, aged 23, under care on account of a fibroid recurrent tumour in front of the thigh, which had been excised eighteen times during the last ten years. Mr. Paget made a very free dissection, exposing the sheath of the femoral vessels and removing carefully all the tissues adjacent to the morbid growth. The wound left was a very large one. Under care. (This case is the same as one repeatedly mentioned in former reports as the subject of many operations in Guy's Hospital.) *Cases* 9, 10, 11, and 12.—In these fatty tumours, some of large size, were removed. In all the patients did well. *Case* 13.—St. Bartholomew's: Mr. Lawrence.—A man, aged 35. The tumour was situated over the parotid gland, and was supposed to be itself glandular. After excision it was found, however, to be muscular and to be connected with the masseter muscle. Recovered. *Case* 14.—Guy's: Mr. Cock.—A woman, aged 33, in good health, from whose foot a fibro-plastic tumour had been removed three years ago. The scar had remained sound for about two years and a half, but during the last six months a returned growth had been gradually increasing. It was about the size of a walnut, and on excision proved to be connected with the flexor tendon of the great toe. Recovered. *Case* 15.—Guy's: Mr. Cock.—A woman, aged 22, admitted on account of a tumour, the size of a swan's egg, behind the thigh. It had existed a year, having caused much pain, and resisted all treatment. Puncture with a grooved needle proved it to be an hydatid cyst. A free incision was then made, the contents evacuated, and the parent cyst removed. Recovered. *Case* 16.—Guy's: Mr. Cock.—A woman, aged 47. Tumour, a small mammary glandular one, connected with the breast, and about the size of a pigeon's egg. Excision. Recovery. *Case* 17.—Guy's: Mr. Birkett.—A boy, aged 10, under care on account of a fibrous tumour of congenital origin, connected with the metatarsal bone of the right thumb. Excision. Recovery.

REMOVAL OF A FŒTAL ABNORMITY.

A male infant, aged 10 months, was admitted into Guy's under the care of Mr. Cock, on account of a large tumour developed in connexion with the pelvic bones, and projecting on the surface of the abdomen. Its circumference was six inches, and it was slightly movable. The infant was in other respects well formed. It was increasing rapidly in size. Mr. Cock exposed its surface, and finding that it passed too deeply for its complete removal to be effected, placed a ligature round its base, on a level with the abdominal muscles, and then excised the larger part. It proved to be the remains of a fœtal development, probably of another child, and consisted in part of bone surrounded by cartilage. The infant

recovered well, and there are as yet no signs of a second growth.

REMOVAL OF THE TESTIS.

Case 1.—Guy's: Mr. Hilton.—A man, aged 22, in good health, until within the last two years. For two years the left testis had been gradually increasing in size, and an abscess had formed, which had left a small sinus leading into the gland. Excision of the whole was performed. The gland was found infiltrated with tubercular deposit, which choked the tubes. The head of the epididymis was especially affected, and in some parts the gland structure remained sound.

Case 2.—University College: Mr. Erichsen.—A man, aged 40, under care on account of strumous disease of the testis of some years' duration. Excision of the gland. Recovery.

LIGATURE OF ARTERIES.

Case 2.—Guy's: Mr. Cock.—A man, aged 35, of very intemperate habits, admitted on account of a compound fracture of the leg. The ends of the protruding bones were cut away, and reduction effected. Secondary hæmorrhage occurred on three successive days, and the man sank into a state of typhoid debility. Four days after admission, Mr. Cock exposed the posterior tibial artery, and tied it above and below the wounded spot. The artery had been exposed from before by the removal of six inches of the shattered tibia. The man was too ill to bear it, or amputation would have been performed. Death took place on the eighth day after the accident.

EXCISION OF BONES, ETC.

Case 10.—Guy's: Mr. Hilton.—A boy, aged 7. Almost the whole of the os calcis was removed, by incisions on its outer side. It was loose, and in a state of necrosis. The epiphyses were left, and also a fair shell of new bone. Healing has progressed satisfactorily since the operation.

OPERATIONS FOR URETHRAL STRICTURE.

Case 1.—University College: Mr. Erichsen.—A man, aged 45, for twenty years the subject of an intractable stricture. An operation for its cure had been performed fifteen years ago, but had not been successful. A grooved staff having been introduced, Mr. Erichsen divided upon it a long and very tight stricture. The man did well afterwards. The wound is now quite healed, and No. 11 can be easily passed. *Case* 2.—St. George's: Mr. Hawkins.—A middle-aged man, under care on account of an impassable stricture, with perineal fistulæ. A staff was passed down to the stricture, and its point having been cut down upon, the latter was divided. A catheter was subsequently introduced into the bladder. The patient is doing well. *Case* 3.—Guy's: Mr. Cock.—A man, aged 38, the subject of old standing stricture and of numerous perineal fistulæ. A small staff was passed through the stricture, and perineal section performed. Doing well. *Case* 4.—St. Mary's: Mr. Coulson.—A man, aged 30, for three years the subject of stricture. The smallest instruments could with difficulty be passed. There were fistulæ in the perinæum. Syme's staff having been introduced, perineal section was performed. The wound is now all but healed, and a No. 8 is easily introduced.

PUNCTURE OF SPINA BIFIDA.

The Metropolitan Free: Mr. Hutchinson.—A male infant, aged 7 months, under care on account of a large spina bifida over the junction of the lumbar and sacral vertebræ. The child was well grown and in good health. The tumour was the size of a fist, and the skin over it was extremely thin. The measures of treatment at first adopted consisted in the employment of a gutta percha cup, so padded as to somewhat compress the tumour. For some weeks the child did well, and the tumour appeared to diminish; subsequently, however, the signs of cerebral irritation were developed, and the head began to increase in size. The child had repeated convulsive seizures. At the same time, the dorsal tumour became full and tense. To obviate its giving way, and in the hope of determining away from the head, puncture of the tumour was now performed. A very minute trocar was employed, about eight ounces of clear serum drained away, and the puncture allowed to close. The symptoms of cerebral irritation were not materially increased after this procedure, but the child continued to be very restless, and to have convulsions at frequent intervals. Some improvement had appeared to be taking place, when suddenly, on the tenth day after the operation, death took place in a violent convulsion. At the autopsy, the cyst was found to contain several ounces of thick creamy pus, which also passed into the adjacent part of the theca vertebralis. Flakes of lymph adhered to the arachnoid lining, and acute inflammation had evidently existed.

PLASTIC OPERATIONS.

Harelip.—In three cases operations for the cure of single hare-lips have been successfully performed.

For Ruptured Perinæum and Prolapsus Uteri.—St. Mary's: Mr. Baker Brown.—In three cases of this kind Mr. Brown performed the usual operation of paring the edges, and uniting them across by the quilled suture, in all with a favourable result.

For Cleft Palate.—St. Thomas's: Mr. Solly.—A girl, aged 12, with cleft of the soft palate. The usual operation was performed, but the sutures sloughed out, and no union resulted.

LIGATURE OF VARICOSE VEINS.

A woman, under the care of Mr. Walton, in St. Mary's, on account of very large varices on the outside of the leg and thigh, which had almost disabled her from going about. Ligature, by means of needles passed under the trunks, and silk twisted over them, was performed. The needles were allowed to ulcerate out. Doing well.

ST. MARY'S HOSPITAL.

We may adduce the following case as an illustration of the obscurity which must have attended the differential diagnosis of tumours before the microscope came into use. Twenty years ago it would, in all probability, have been recorded as an instance of scirrhus occurring at an unusually early age, and as time went on, would have also been triumphantly quoted as an example of the permanent cure of cancer by operation. Nor is it at all an unusual instance. However unwilling to admit such an opinion, there can be little doubt but that a very large proportion indeed of the recorded cases in which cancer is said never to have returned after the first operation, are examples of like error. Myeloid tumours of bone were formerly classed, without hesitancy, as cancers; whereas we now know, thanks to the histological investigations of Paget and Lebert, that they are structurally quite distinct, and that they possess little or no malignancy of nature. The only example of scirrhus of the testis, referred to by Sir A. Cooper, has been recently proved by Mr. William Adams to be an excellent example of enchondroma; and a second example of a precisely similar mistake was shown to us by Dr. Wilks, a short time ago, in the museum of Guy's Hospital. In the class of mammary glandular tumours, prior to the labours of Mr. Birkett and M. Lebert, errors in diagnosis were of constant occurrence, as, indeed, they still must be to those who despise the aid of the microscope. However freely we may admit that there are limits to the knowledge supplied by that instrument; and that in some instances it may very possibly mislead rather than help; yet there can, we think, be no room for doubt as to the great advantages, in respect to diagnosis, which it has supplied to the scientific Surgeon.

MAMMARY GLANDULAR TUMOUR, RESEMBLING SCIRRHUS.

(Under the care of Mr. COULSON.)

Hannah T., aged 28, a healthy-looking woman, servant in a family, was admitted into St. Mary's Hospital, under Mr. Coulson, August 5. There is no history of any particular disease in her family, which appears to have been a tolerably long-lived one; her mother was the subject of bronchocele. The patient has generally enjoyed good health; catamenia regular. About twelve months ago she noticed a lump in the left breast at the upper part, and shortly before this she had received a blow on the part from the corner of a bedstead. The tumour has slowly attained its present size, but it has increased in size more rapidly of late. She has not suffered much from pain until lately. The pain is of a sharp, shooting character, and is worse after any considerable exertion, and especially after moving the left arm. She has become rather thinner since the tumour has grown more rapidly. It seems that the pain is rather worse at the monthly periods than at any other time. She has been treated for the last three months, but no effect has been produced on

the size of the swelling by the applications which have been made use of.

At the upper part of the left mamma is a tumour of a somewhat flattened form, about the size of an egg. The transverse diameter is longer than the vertical; it is not adherent to the skin covering it, or to the parts beneath. The surface is slightly nodulated, and it has a very firm feel. Slight pressure gives no pain, but when handled less tenderly she complains much.

August 9.—Mr. Coulson proceeded to remove the tumour by operation. A horizontal incision was made into the skin covering it, and the mass dissected away from its attachments to the surrounding parts. The attachments to the mammary gland at its lower border were rather firm; it did not extend beneath the pectoral muscle. A few vessels having been tied, the edges of the wound were brought together, and the operation completed. On section of the removed mass, it was found to be very hard, the cut surface of a whitish, slightly orange colour, and very much resembling scirrhus. A small portion, the size of a large pea, was particularly hard, and to the eye had all the character of true scirrhus. Microscopic examination, however, failed in revealing the usual characters of a cancerous growth in any part of the tumour. It was found to be made up of lobules and tubes filled with epithelial matter. The cells were very small in size, and did not resemble those found in tumours of a malignant class; in fact, it was a good specimen of chronic mammary tumour. The patient did well. The wound cicatrized speedily, and she was discharged September 1 cured.

THE PROVINCIAL
PRACTICE OF MEDICINE AND SURGERY.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

CASE OF CARDITIS, WITH ABSCESS IN THE SEPTUM OF THE VENTRICLES.

(Under the care of Dr. HESLOP.)

(Reported with remarks by Mr. J. F. WEST, House-Surgeon.)

M. A. S., aged 18, single, waistcoat-maker, admitted into the Queen's Hospital, July 2, 1856. States that she enjoyed good health until about two months ago, when, in consequence of some disappointment, she became very much depressed in spirits, lost her appetite, suffered from vomiting after meals, and occasionally from headache. She has not lived long in Birmingham, and thinks her illness is in some measure attributable to change of air and close confinement to work. During the last three weeks her symptoms have become aggravated, and the week before admission she also experienced frequent rigors, followed by flushes of heat and severe pain in the abdomen. She has never had rheumatism. Catamenia were irregular, prior to the commencement of her illness.

State on admission.—She looks pale and low-spirited; is very restless, and says that the pain in the abdomen prevents her remaining long in one position. Urine, specific gravity, 1020, reaction acid; bowels regular; tongue coated; pulse 108, irregular, throbbing, and incompressible. Chest is healthy and well-formed, and exhibits no morbid phenomena either by percussion or auscultation. Heart's action is tumultuous and irregular, but no bruit is perceptible. There is an increase of pain by pressure of the right hypochondriac and infra-sternal regions, which she describes as shooting upwards through the præcordia.

℞ Liq. ammon. acet. ʒii., sp. æth. nit. ʒss., mist. camph. sp. ʒi., 4tâ quâque horâ. Broth diet.

July 4.—States that she feels constant nausea, and has entire loss of appetite. Weeps incessantly, and can give no reason for it, except that she feels low-spirited. Has very little sleep, and when in the recumbent position complains of slight dyspnœa. Vesicular breathing is heard throughout both lungs. Bowels confined.

Cont. remed. sum. pil. col. co. gr. x. h. s.

7th.—Continues much the same. Headache is increased, and dyspnœa also. A very slight icteroid tinge is noticed over the whole body. Bowels freely open; tongue thickly coated with white fur. Pulse 110, unequal and incompressible.

10th.—Is much weaker. Dyspnœa has increased. Skin is hot and dry, and thirst is very great. Has frequent vomiting of a dark green liquid. Pain referred to epigastrium has increased. Pulse 110. Emp. lyttæ 5 × 4 epigastrio applic.

℞ Sod. bicarb. ʒij., acid. hydrocy. ♏ xx., mist. camph. ʒviij. capt. ʒj., ter in die.

11th.—Vomiting still continues, but she suffers less from the feeling of nausea. Dyspnœa and pain in epigastrium are constant. Bowels freely open. Tongue coated. Pulse 110.

12th.—Is much worse. Dyspnœa has increased, and prostration is more marked. She sighs frequently and deeply, and each sigh is followed by a sort of hysterical hiccough.

14th.—She complains of pain in the præcordial region. Skin is hot, but moist. Pulse 130. Heart's action very tumultuous, and the distinction between the 1st and 2nd sounds is lost. She has much dyspnœa and a slight hacking cough. Respiratory murmur is impaired in the infra-scapular region of both sides. She had a shivering fit this morning.

℞ Quinæ disulph. ʒij., acid. sulph. dil. ʒiss., syr. aurantii ʒss., aq. Oss. ʒj. ter die. Beef-tea and wine ʒiij.

15th.—Pain in præcordial region and dyspnœa still continue, and she is unable to remain long in any position. Pulse 130, strong and quick. Sighing and singultus are still present.

16th, 9 a.m.—Skin hot and dry; no shivering this morning. Increase of præcordial pain. Vomiting continues, and dyspnœa, with hysterical hiccough. Breathing is relieved when she is in the erect posture. Pulse 145, small and irregular. Tongue coated.

℞ Ol. tereb. ʒiij., sp. ammon. arom. ʒss., mist. acaciæ, mist. camph. āā ʒiv., cap. ʒj., 4tâ quâque horâ.

℞ Morphiæ mur. gr. i., camphor. gr. x., ext. hyoscy. q. s. Ft. pil. i., cap. i., cum sing. dosib. misturæ. Brandy ʒiij., applicetur sinapismus præcordiis.

3 p.m.—Appears somewhat relieved, and sleeps profoundly. There is great pallor of the lips and countenance. At 5 p.m. she suddenly started up from sleep, and was seized with an hysterical convulsion. This lasted only a few minutes, but was followed by three others in succession. The last, which occurred about 6 o'clock, was very violent, and during it she died.

Post-mortem Examination made Thirty-six Hours after Death.—*Thorax*—Pleuritic adhesions of old standing were found on both sides of the chest. *Right lung* considerably engorged, and but slightly crepitant in its inferior lobe. Cicatrices were found at the apex, but no recent tubercle. *Left lung* highly congested, and containing much frothy mucus. A large clot was found at the commencement of the pulmonary artery. *Pericardium* contained two or three ounces of serous fluid, with a few flocculi in it, but the membrane had not lost its transparency, and there was no evidence of inflammatory action. The *heart* appeared large, both right and left cavities being distended with imperfectly coagulated blood. The clot in the right auricle completely filled the cavity, and was found, on removal, to weigh an ounce and a-half. The right ventricle was comparatively empty. On the wall of the septum ventriculorum there was a small spot of ecchymosis, and a slight bulging forwards of the endocardium. No opening could be found in this situation. Behind the tricuspid, and also behind the mitral valve, much blood had accumulated. The cavity of the left ventricle was large, and filled with a dark-coloured coagulum. Its walls were of natural thickness, and were contracted; they were brown, darker in colour, and softer in consistence, than is normally the case. That part of the endocardium immediately below the semi-lunar valves presented an irregular ecchymosed surface, and had the appearance of being undermined. The irregularity of the surface increased towards the base of the aorta, and at the convex attachments of the middle and anterior segments of the valves there was a mass of organized fibrinous deposit, of the size of a small walnut, measuring about three quarters of an inch from side to side, and half-an-inch from above downwards, solid to the touch, not broken down by pressure, and firmly attached at its base to the endocardium. On dividing the anterior and middle semi-lunar valves, so as to reflect this mass of granulations, a cavity was observed in the septum ventriculorum, sufficiently capacious to hold a marble, and containing some recently-formed coagulum, with a considerable quantity of pus and broken-down lymph. It was somewhat of quadrangular form, extending from the base of the

aorta, immediately below the commencement of the coronary arteries, to that part of the ventricle where the carneæ columnæ terminate. A probe passed into the cavity could be felt very distinctly for an inch in every direction beneath the endocardium of both right and left ventricles. The mobility of the middle and anterior segments of the valves was greatly impaired by the fibrinous deposit at their base. At about the centre of the middle segment there was found an ulcerated opening, large enough to admit a pea; and at the attached border of the anterior one, another opening of equal size was found. The posterior segment had lost its natural transparency, and there were several minute fibrinous vegetations upon it. No perforation of this segment was perceptible. The pulmonary semi-lunar valves, as also the mitral and tricuspid valves, were free from disease. *Abdomen.*—*Liver* engorged; soft in consistence, and firmly attached along the whole of its upper surface to the diaphragm. *Spleen* considerably enlarged, and easily broken down by pressure. *Stomach.*—There was marked vascularity of the mucous coat. *Kidneys.*—The right kidney was immensely engorged, of dark-red colour, softer than natural in its cortical substance, and containing numerous patches of fibrinous exudation diffused through it. Investing capsule very adherent. Left kidney presented a somewhat similar appearance in respect of engorgement, and, in addition, two or three deposits of decolorized blood; one situated in the upper part of the kidney, at the junction of the cortical and medullary portions, was larger than a pea. The *Uterus* presented evidence of menstrual congestion. The *Right Ovary* contained a clot of extravasated blood, and the *left* a globular cyst, of the size of a marble. *Brain.*—Substance of brain was firm and healthy. No puncta vasculosa were observed in the centrum ovale. Ventricles empty. Choroid plexuses and velum interpositum pale. Cranial sinuses and torcular herophili all full of dark-coloured coagula. A clot extended through the whole length of the basilar artery, tapering towards the bifurcation of that vessel. The other arteries at the base of the brain were almost empty.

Remarks.—The above case, which occurred in the practice of Dr. Heslop, is one of considerable interest, and one which is well worthy of attention as a specimen of a disease of which there are very few cases on record. There appears in this case to have been no adequate predisposing cause for the disease, no history of rheumatism could be ascertained, no proof of that degenerative action in the system which sometimes precedes rupture of the heart, and in fact nothing to warrant suspicion of any previous disease whatever. It is evident that the disease of the heart was acute, and that it existed at least a fortnight, and when we consider the amount of disease found after death in the central organ of the circulation, it is difficult to understand how the patient managed to survive so long. The symptoms from which the girl was suffering when first brought under treatment were very anomalous. They corresponded to those of no definite disease, and appeared to resemble hysteria in an aggravated form, rather than anything else. The pulse was wiry, rapid, and tumultuous, yet no abnormal sounds attended the action of the heart, and none were noticed till two days before her death, when a continuous blowing sound was heard, accompanying and masking both first and second sounds. The pain complained of was throughout rather abdominal than thoracic, and until a very late period of the disease no pain was experienced on pressure. The marked depression of the vital powers, together with the pallor and anxiety of the countenance, were very remarkable, and these were perhaps the only symptoms that remained constant throughout. Restlessness and disinclination to remain for any length of time in one position, attended towards the fatal termination by perfect inability to lie down, were also very marked symptoms. The vomiting which she experienced at the commencement of the attack and the epigastric tenderness, at one time caused suspicion of ulcer of the stomach, but the post-mortem examination showed that these must be regarded solely as sympathetic symptoms, no morbid phenomenon, beyond slight congestion, being found in that organ. Another symptom, which could not fail to attract attention, was the hiccough which came on during the last two days. It was of a very peculiar character, and resembled those convulsive sobs which are heard in hysterical cases at the end of each respiration, rather than the singultus which occurs at the close of typhus and other exhaustive diseases. It is interesting to notice the early existence of rigors and the presence of an icteroid tinge of the skin, as indicating the introduction of pus into the circulation. As the quantity of pus became larger, the circulation of course became more impeded, in some places being entirely arrested, and hence arose the urgent dyspnœa and syncope from which she suffered so much towards the last. Post-mortem examination revealed the origin of these symptoms: the dyspnœa was found to be owing to the obstruction of the pulmonary capillaries; and the clots discovered in the heart, in the pulmonary arteries, and in the vessels of the base of the brain (which, doubtless, were partially formed before death), sufficiently accounted for the occurrence of the syncope. This obstructive disease in the heart and systemic circulation, probably also served as the cause of the excessive hyperæmia of the kidneys; and the engorgement of the spleen and stomach may, perhaps, be referred to the same agency. The symptoms may then be enumerated as follows:—first, loss of appetite; then nausea and vomiting after meals; epigastric tenderness; great depression of spirits; an anxious, pale, and dejected countenance; a slight yellowish tinge of skin; rigors, occurring without any definite regularity, but more often in the morning than at any other time; a rapid, wiry, and incompressible pulse, gradually becoming more feeble and irregular; heart's action very tumultuous, but presenting no positive phenomena by auscultation; and, lastly, towards the close of the case, incapability of assuming the recumbent posture, pain in the præcordial region, great tendency to syncope, hiccough, and intense difficulty of breathing.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 123.—Mimosis Inquieta.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—I have a patient suffering from mimosis inquieta, and each morning when I have visited her she has been able to tell me whether or not she will be troubled with frequent fits during the day, by the curious appearance of her nails, presenting as they do (when fits are likely to come on) a blue tinge, not to be seen at any other time.

She has shown me her fingers frequently, and I have never yet known her wrong. If some of your correspondents will inform me what is the cause of this peculiarity, I shall feel grateful.

I have given ammon. sesquicarb., tinct. opii mist. camph. as ordered by Dr. Guy, but still the fits have come on at different times, although perhaps not so strong as they would have done otherwise. I am, &c.

City-road, August 22, 1856. W. S.

No. 124.—Unwholesome Meat.

Sir,—In the interesting report on "Unwholesome Meat in London," by a Committee appointed by the Metropolitan Association of Medical Officers of Health, published in the last number of the *Medical Times and Gazette*, two observations occur upon which further information is desirable. First. "We need scarcely remind you that the eating of measly pork and of ill-cooked animal food in general is notoriously a cause of tapeworm and of various forms of hydatid that infest the human subject."

Now, granting that the appearance in pork termed "measly" is essentially due to hydatids; granting, also, the correctness of recent views as to the development of tapeworms from cystic entozoa, where are the facts to be found upon which the above important conclusion has been arrived at?

Secondly. "We may allude, in passing, to the overfed condition in which cattle are commonly killed at Christmas. Dr. Druitt has seen several instances of illness from eating that kind of meat."

A detail of the symptoms observed in such cases would be useful and interesting. I am, &c.

Finsbury, Sept. 1, 1856. A. L.

No. 125.—Treatment of Buboes by Caustic Potass.

Sir,—Will you favour me by affording the opportunity of a reply to my query, Whether any of your readers have any

experience in the practice of opening buboes by caustic potass?

I have had occasion to see repeated cases of obstinate fistula following the use of the knife, and have consequently adopted the practice of rubbing the pointing bubo with caustic potass, so as to produce a large slough. In my practice it has always tended to produce a satisfactory healing by granulation; and, in cases of fistula after the use of the knife, I have never found the caustic slough to fail in effecting a speedy removal of that unpleasant and tedious opprobrium.

I am, &c.

Lancaster, August 30, 1856. METCALFE JOHNSON.

ANSWERS.

To No. 118.—TREATMENT OF NEURALGIA.

[*To the Editor of the Medical Times and Gazette.*]

SIR,—Seeing in your last week's paper a letter signed "A Sufferer," who has been affected with chronic neuralgia of his face, which has resisted various remedies, I beg to recommend the accompanying prescription as most effectual, and trust it may prove as beneficial to the sufferer as it has been in four cases of long standing.

℞ Zinci valerianat.
Quinæ valerianat aa gr. xij.
Ext. hyoscyami gr. xxiv.
Misce et fiat. pil. xij. capiat unam ter in die.

I am, &c. A SUBSCRIBER.

To No. 118.

SIR,—Under the head of "Notes and Queries," No. 118, a sufferer inquires for a plan of treatment for facial neuralgia, but gives no data from which an opinion may be formed of the cause, without which treatment will be but experiment. Decayed, or otherwise diseased teeth and stumps, are a very frequent cause, even where the subject does not suffer from odontalgia. He should, therefore, ascertain the condition of those organs, as it is not unusual for chronic inflammation of the alveolar periosteum or of the tooth-pulp to produce neuralgia in other branches of the nerve, or in the branches of other nerves with which they correspond.

As to remedies, there are many of known worth besides those he has already tried, but it is useless entering upon them until it is ascertained whether the affection is functional or symptomatic, and, if the latter, of what?

I am, etc. W. D. SAUNDERS.

33, Baker-street, Portman-square, Sept. 1, 1856.

Medical Times & Gazette.

SATURDAY, SEPTEMBER 6.

STATE VACCINATION.

IN addition to the remarks which we made last week upon the subject of Vaccination, in connexion with Mr. Marson's petition to the House of Commons, there are some further observations which are suggested by that very excellent and timely document.

Mr. Marson, drawing his conclusions from the Vaccination of 40,000 persons, and the records of nearly 9000 cases of Small-pox, informs us that while in the unvaccinated cases the mortality ranges from 35 to 50 per cent., in those who are well vaccinated the mortality is only ¾ of 1 per cent.! Surely this is a demonstration almost amounting to mathematical precision, especially if we take into account the numerous disturbing circumstances which must necessarily tend to introduce error into the calculations.

Again, Mr. Marson has been in his position as Resident-Surgeon of the Small-pox Hospital for upwards of twenty years, and has vaccinated some 40,000 persons; and we were well acquainted with another gentleman, who, during a course of nearly forty years, vaccinated some 20,000 cases. Now if Vaccination were really such a curse as it has been represented to be, and if such a host of deadly diseases had followed from the operation, it would naturally have happened that the public would have regarded both these gentlemen with loathing and abhorrence, as being the authors of infinite misery and suffering to the population; yet what has been the result? Why, that under a purely voluntary system, the rational portion of the public have resorted, in thousands, again and again, to submit themselves and their offspring, at the hands of these gentlemen, to this very mild and beneficent protective against a loathsome and fatal malady.

If Vaccination is still not wholly effective, the result may be traced, first, to the neglect of it altogether, and, secondly, to the imperfect manner in which it is too often performed. As to the injurious effects said to be caused by the operation, we need do no more than to set them down to wilful falsehood or to gross exaggeration.

With regard to the first point, the neglect of Vaccination, little need be said, except that it is the object of all proposed legislative measures on the subject, to promote a greater vigilance in performing the operation, and to encourage a better appreciation of the benefits which it confers. Nor do we consider it at all a hardship to adopt compulsory measures to ensure the protection of the community against small-pox. As a man is not allowed to set his house on fire, and thereby endanger his neighbours' houses, so neither ought a man to be allowed to propagate small-pox in a crowded district, to endanger his neighbours' lives.

In the second place, it is quite certain that Vaccination is too often inefficiently performed. Mr. Marson states that, although the mortality from small-pox among the well vaccinated, that is to say, who have four or more good vaccine cicatrices, is under 1 per cent.; yet, among the badly or imperfectly vaccinated, the mortality is 15 per cent. Hence, it is of the utmost importance, not only to secure the operation of Vaccination, but also its efficient performance; and this object, we believe, would have been in great measure attained if the late Vaccination Bill had been allowed to pass into a law.

A slight glance at the progress of Vaccination, from the commencement of the present century, will suffice to show the feebleness and inadequacy of the legislative measures hitherto adopted to promote the diffusion of this great blessing.

Until about fifteen or sixteen years ago, the only institution encouraged by Parliament to promote Vaccination was the National Vaccine Establishment, which was, and still is, supported by an annual parliamentary grant, and which employs, in addition to a Resident Vaccinator, about a dozen other Vaccinators, at a fixed salary, in different parts of the Metropolis. It is the duty of these gentlemen, not only to vaccinate all persons who apply to them, but, also, to supply lymph to the members of the Profession, at home and abroad. These duties we know to be faithfully and efficiently performed; but it is quite evident that the whole establishment is upon far too limited a scale to be of great public utility.

With a view to extend the benefits of Vaccination, an Act was passed, in the early part of the reign of Her present Majesty, empowering Boards of Guardians to contract with duly licensed Medical Practitioners, for the purpose of vaccinating the public; and a further supplementary Act was passed, providing that peroans who availed themselves of the gratuitous services of the Vaccinators were not to be considered paupers.

By this Act there can be no doubt that the practice of Vaccination was much encouraged, and as the Vaccinators were now, in the case of poor persons, paid for their services, their zeal was stimulated, and the number of Vaccinations

was very much augmented. But the deficiencies observable in the Act almost counterbalanced its advantages; and the circumstance that the working of the measure was left to the Local Boards was not one of its least objectionable features. These Boards being chiefly composed of persons who could not possibly understand anything about the details of Vaccination, and who, moreover, had generally been distinguished by open hostility or secret enmity towards the Medical Profession, the choice of Vaccinators was and is made in an arbitrary and desultory manner; no guarantee is given or required of the efficiency of each individual for his task, and no measures whatever are adopted for ensuring a proper supply of lymph. In some districts, only the Parochial Surgeons are appointed Vaccinators; in others, District Vaccinators are appointed at stated localities; in others, again, every Medical man is appointed Vaccinator, who chooses to accept the terms offered by the Local Board. The last plan is, perhaps, the most absurd of all; because when fifty or sixty persons are appointed to a duty which cannot employ, and certainly cannot remunerate, more than two or three, it necessarily happens, that, by the diffusion of the labour into infinitesimal ill-paid portions, the whole system is weakened and rendered worthless. Descending from the abstract to the concrete, we cannot conceive that a person who is called upon to vaccinate six persons in a year, for which services, *if successful*, he receives nine shillings, can take the necessary trouble of procuring and keeping constantly on hand a supply of pure lymph, which might of course well be done by the Practitioner who vaccinates twenty or thirty persons a-week, for which duty he may receive in the year some fifty or sixty pounds.

We regret that the Vaccination Bill, lately before Parliament, did not propose to remove the machinery of Vaccination from the hands of the Boards of Guardians; but there were so many good features introduced,—as the better payment of the Vaccinators, the supervision of the details of the operation by competent Professional authority, the provisions made thereby for the supply of good lymph, and the compulsory clauses by which Vaccination was made imperative upon all,—that we again express our very deep regret that the Bill did not pass, and, at the same time, our hope, that in the next Session of Parliament it will be introduced with a better chance of success.

ACCIDENTAL POISONING.
THE APOTHECARIES' HALL OF IRELAND.

The Irish Executive has, with laudable energy, turned its attention to the subject of poisoning, to which recent events have unhappily attached so much importance. It will be recollected, that, within the present year, two cases of accidental death from this cause occurred in the Sister Kingdom; and as in both instances the fatal errors originated with persons who had not received a special education in pharmacy, an obvious method of, in part at least, checking the evil was to enforce the law already existing, against those who should undertake to dispense medicine without having had their competency to do so tested by the body legally entrusted with this function. An official communication was accordingly made to the Governor and Company of the Dublin Apothecaries' Hall, to the effect that the Government was prepared to submit to the Attorney-General for Ireland the names of such persons as should be returned to them by the Hall as infringing the Act of 31 George III., cap. 34, together with such proofs as might be sufficient to establish the fact of the violation of the law. It was further suggested to the Governor and Company, that a correct and uly authenticated list of their licentiates should forthwith be published and supplied to the magistrates and police authorities throughout the country, in order that the names of offenders might immediately be ascertained. This is a step in the right direction, and is, we trust, an indication that the Government are about to take their proper place in watching over the sanitary welfare of the people. In compliance with the suggestion of the Government, the Governor and Company have, as a preliminary step, addressed the circular, which will be found at page 254 of this week's Journal, to their leading Licentiates throughout the United Kingdom.

THE WEEK.

It is gratifying to find, by the last Return of the Registrar-General, that the public health is in a most satisfactory state, and that even those diseases, such as diarrhœa and cholera, which usually prevail at this period, are less fatal than during the three previous weeks. The present rate of mortality is about the average rate of corresponding weeks for ten previous years, excluding the excess of deaths produced by epidemic cholera in 1849 and 1854. The diseases of the zymotic class are not now very prevalent or very fatal, notwithstanding the heat of the weather, which must tend to load the atmosphere with animal and vegetable exhalations; and typhus fever was fatal, last week, to only twenty-seven cases in the Metropolis. The newly-appointed Medical Officers of Health are fortunate in the season, which is so favourable, in a sanitary point of view, as to offer little scope for their exertions; and as the capital of the Empire is now in a healthy condition, it is to be hoped that the increased diffusion of sanitary knowledge and the practice of an enlightened hygiene will contribute to keep it so.

Some of the Edinburgh Journalists are very irate with what they are pleased to term "the small unknown" of "the London weeklies." One of our London contemporaries has been unfortunate enough to insert a paragraph representing the deplorable condition of the Edinburgh Infirmary, and the apathy of the citizens of the northern capital towards their own Hospital. According to the authorities of the Infirmary, that establishment never was in a more flourishing state, and we are rejoiced to be informed of the fact, as we are quite aware of the excellent use which is made of the means of clinical instruction afforded within its walls, and of the host of well-taught students whom it annually sends forth. But we are somewhat nettled that, because one of the "London weeklies" has inserted a paragraph which may be incorrect, the whole of the London Medical Journals are to bear the blame. More especially do we repudiate the "soft impeachment" conveyed in the *Edinburgh Medical Journal*, that in this season of universal vacation the principals of the "London weeklies" have deserted their posts. So far as we are concerned the imputation is wholly groundless, as the fascinations of the mountain and the flood have never tempted us away from our ceaseless vigilance over the interests of Medicine.

It is a matter of deep regret, that, after terminating a formidable war, in a period of very satisfactory public health, and in presence of a most abundant harvest, the price of provisions of all kinds is still enormously and disproportionately high. Upon the members of the Medical Profession this high rate of the necessaries of life tells with peculiar severity; for not only is the Medical Practitioner taxed directly in his hard-earned income, and indirectly is compelled to pay high prices for the sustenance of his family, but his poorer patients are unable to pay their accounts to him, in consequence of their wages being swallowed up in the purchase of bread. No satisfactory reason whatever is assigned

for the extravagant prices asked for bread and meat at the present moment; and we fear that the cause is to be sought in the avarice of speculators, who would apparently sacrifice to their love of gain the welfare of multitudes of the human race. We have suffered severely enough, Heaven knows, from occasional failures of the corn crops, from the disease of the potato, and from the mysterious and widely-spread blight of the vine; but there is no justification for man to add, by his rapacity, to the evils which Nature has inflicted, and to induce an artificial scarcity while the face of the earth is teeming with fertility and abundance. We sincerely hope that prices will fall before winter adds its rigours to the hardships already endured by the labouring population.

It appears, by the statements of Mr. Walter Wilson, in a letter to the *Times*, that 536 persons, on the average, are annually destroyed by poison in England; and assuming that many of those who are poisoned recover, in the proportion of 11 to 1, it may be asserted that 6432 persons annually poison themselves, or have it administered to them. It also appears, that, since the restrictive laws were passed respecting the sale of arsenic, the deaths from poisoning have been only very slightly diminished. The writer very properly urges upon the Legislature the necessity of passing some new laws upon the subject; and it is, no doubt, desirable, as we have often before had occasion to remark, to put a definitive check upon the indiscriminate sale of poisons in this country. We have already alluded to the steps which are now in progress upon this subject in Ireland.

PROGRESS OF MEDICAL SCIENCE.

EXPERIMENTS ON ANIMALS WITH STRYCHNIA,

AND THE PROBABLE REASONS FOR ITS NON-DETECTION IN CERTAIN CASES.

By JOHN HORSLEY, Esq.

The following is a paper read in Section B. of the British Association by Mr. John Horsley, of Cheltenham, on the above subject:—

In a previous paper I have detailed a method of detecting infinitesimal quantities of strychnia; but of what avail, may it not be asked, are all your fine tests, if, when an animal has been purposely poisoned with strychnia, little or none of it can be extracted or discovered? That this is sometimes the case, the following experiments will show. I am aware that an opinion prevails among some chemists that strychnia is indestructible, indecomposable, and that it ought always to be found in the different organs. In a future part of this paper I shall allude to the probable reasons for the non-detection of strychnia in certain cases.

Wishing to make some experiments on animals, I purchased (for I could obtain no other) three fine white rats, and invited my friend Dr. Wright to be present. At 7.20 p.m. we gave a quarter of a grain of powdered strychnia by way of the mouth, projecting it from paper, and washing it down with a little water.

In about twelve minutes the first signs of involuntary twitchings of the muscles were observed, but they were of a slight character, and continued occasionally during long intervals. After an hour had elapsed, finding the strychnia had not produced much effect, it was suggested by Dr. Wright that the largest rat (which was a female) should have another dose of a quarter of a grain, which was administered. This also not producing any marked effect, at half-past nine o'clock a half-grain more was given to the same animal, leaving the others to see what effect the quarter of a grain would have on them in course of time.

At eleven o'clock I retired to rest, after placing a saucer of bread and milk in the box with the rats. At a quarter to 4 a.m. I got up, for the purpose of seeing how the rats were, and found them still alive and apparently healthy, having partaken plentifully of bread and milk.

At 7 a.m., when the assistant came down, he found two of the rats (one that had a quarter of a grain and the other which had one grain) had recently died, as their bodies were quite warm, and, in about twenty minutes afterwards, the remaining rat died. This animal had lived just twelve hours after having had a quarter of a grain of strychnia administered.

In about three hours afterwards I proceeded to open the rat which had died last, and examined every part of the body with a view to detect the poison, commencing with the heart; but in no instance could the poison be found.

I will now state the mode of procedure I adopted, in order that you may judge whether or not the treatment was proper.

The different organs were triturated in a mortar with water, to which alcohol and acetic acid were afterwards added, the whole allowed to digest for a while, and then boiled. After being strained and filtered, the liquor was evaporated to dryness by a water-bath—the extract re-dissolved with alcohol and acetic acid, and filtered. This liquor was again evaporated, and similarly treated with fresh alcohol, etc. Lastly, the extract was dissolved in water, and the acid carefully neutralized with caustic potash; the resulting precipitate, did not, however, on being treated with sulphuric acid and bichromate of potash, afford the least indication of strychnia; but in order to show that it could not have been present, or, if present, that the organic matter did not interfere or prevent any reaction, I purposely introduced a little strychnia, which instantly developed the usual purple and violet colours. This testing and counter-testing proved unquestionably the absence of strychnia in the precipitate. There was, moreover, a total absence of bitterness in all the liquors.

In this way I proceeded, step by step, with every part of the bodies, but could not get any reaction by the tests I used to detect the poison. What, then, became of the strychnia? Has it been decomposed in the organism and its nature changed, as Baron Liebig intimates when writing in general on the alkaloids?

Now, in reference to the non-detection of strychnia, I do not positively assert that such is the case, but I think it not improbable that the strychnia may have become imbibed into the albumen or other solid animal matter, and so abstracted from the fluid, forming by coagulation (say, for instance in the blood) a more or less insoluble albuminate. The idea has occurred to me, from noticing the coagulation of the glairy white of egg with strychnia, and the fact of my not recovering the full quantity of the alkaloid whenever I had introduced it. At any rate it merits consideration.

Experiment 2.—At three o'clock in the afternoon, I administered to a wild rat at least three-quarters of a grain of strychnia in a fluid state. It apparently evinced but very little of the effects of the poison, and, after being kept alive for five days, was only purposely killed by a dog, partly because of the cage being required by the person who lent it to me, and partly from the fact of the animal, which in other respects was very well, having œdematous swellings of the palms of the feet, and one of its fore-feet contracted.

Experiment 3.—I administered two grains of strychnia, in the form of a pill, made with conserve of roses, to a full-sized terrier, taking the precaution against its rejection, on account of its bitter taste, to wrap it up in a fold of blotting paper. The dog was dosed at 6 p.m., and taken out into the outer laboratory to die. I visited him regularly every half-hour for five hours, until I went to bed, and the dog, as far as I could observe, had not evinced a single symptom. In the morning, however, it was dead, but lying apparently in the most natural position for a dog asleep, with its head resting on its shoulder and its feet stretched out. When taken up, blood flowed freely from its mouth. On opening the animal, I found the right ventricle of the heart empty of blood, while the left was full, some of the blood being liquid and some clotted. The stomach was carefully secured at both its orifices and detached. On making an incision I was surprised at not seeing the paper in which I had wrapped the pill, naturally expecting it would have been reduced to a pulp by the fluids of the stomach. I therefore sought for it, and lo! here it is, in precisely the same condition as when first introduced into the gullet of the dog, and containing nearly all the strychnia. I have been afraid to disturb it until I had exhibited it to you; and now I will weigh the contents, and ascertain how much has been absorbed or dissolved out, or treat it in whatever way you

like (a). This experiment is important, as showing the small quantity of strychnia necessary to destroy life, and had I not been thus particular to search for the paper envelope, it might possibly have led to a fallacy, as I must have used an acid, and that would have dissolved out the strychnia, and the inference would have been that it was obtained from the contents of the stomach, whereas it had never been diffused.

In this case, also, none of the absorbed strychnia was detectable in the blood, or any part of the animal, although the greatest care was observed in making the experiments. In some cases the precipitates were digested in ether, at other times in chloroform, but without yielding any indications of strychnia. Slight traces were, however, observable in the contents of the stomach.

The Laboratory, Cheltenham, July 24th, 1856.

P.S.—Since writing the foregoing I have made some experiments which I think will prove that it is highly probable a more or less insoluble compound of organic or animal matter with strychnia is formed.

For instance, I took the contents of an egg (the white and the yelk), agitated them with a solution of strychnia containing one and a-half grains of strychnia, and boiled them to complete coagulation in a water-bath. I next broke up the coagulum, and tried to extract the strychnia by boiling it with water. The filtered liquor, which was slightly bitter, was evaporated to dryness, boiled with alcohol and a few drops of acetic acid, and again evaporated to dryness. This extract was treated with water, acidulated with acetic acid, filtered, and carefully neutralized with liquor potassæ; on standing for a short time, small needle-shaped crystals of strychnia were deposited, but in small proportion, perhaps not more than one-sixth of the original quantity used. I next digested the solid residue of the egg in strong sulphuric acid, diluted it with water, and then boiled the mixture; the liquor, though strongly acid, left no bitterness on the palate. After filtration, and pressing the residue in a cloth, the liquor was concentrated by evaporation, and neutralized with ammonia, but only a precipitate of organic matter was obtained, for when this was collected in a phial and washed with ether, hardly a trace of strychnia could be detected on treating that which remained after evaporating the ether. This, I think, proves that the strychnia must either have been destroyed by combination with the solid organic matter, so as to render it incapable of being extracted as pure strychnia, or else decomposed by the sulphuric acid in the attempt to extract it from the albuminoid matter.

(a) I have since ascertained that it took three-quarters of a grain to kill the dog.

Selections from Foreign Journals.

ON MORBID ASSOCIATIONS.

By Dr. PARAVICINI.

The prize essay bearing this title, though somewhat prolix, abounds in the relation of surgical cases and post-mortem examinations—the object being the exhibition of the mutual influence which disease of the external surface and of internal organs exert upon each other. The following are Dr. Paravicini's conclusions:—

1. The morbid reflections exercised by surgical diseases on the viscera, and by these on the external parts, are subject to certain laws that may be termed elective. 2. These laws are, however, not absolute, as the reverberations may sometimes be effected in all parts and directions. 3. In 90 cases in 100, persons succumbing from surgical affections, die in consequence of the supervention of some simple or complex internal visceral disease. 4. In the different affections of the skin, and subcutaneous cellular tissue, as burns, wounds, furuncles, abscesses, &c., the reverberation is usually developed in some part of the gastro-enteric canal, and death results from the mischief induced therein. Favus does not follow this rule, but frequently gives rise to metastatic abscess, especially of the liver. In inflammatory affections of the deep-seated or sub-aponeurotic cellular tissue, the serous cavities, and especially the pleura, are influenced, and become the seat of fatal disease. Next to, or associated with these, are bronchial or pulmonary affections. 6. In acute affections of the bones, the serous sacs are still the most prone to inflame and induce death—the formation of visceral abscesses dividing this prerogative with them. 7. Simple fractures of the bones of the extremities may produce death indirectly, not only by reason of the immediate reverberation from the local affection, but through broncho-pulmonary affections, favoured by the position necessarily observed, and in the aged by pre-existing præcordial mischief. 8. Compound fractures, on the other hand, give rise to purulent infection, and its fatal consequences. 9. Chronic affections of the bones terminate fatally by various internal pathological conditions, and it is incorrectly stated by authors, that purulent infection and tabes alone induce such termination. Visceral tubercle, especially pulmonary, and phlogosis of the serous membranes, are just as frequently observed. 10. Many external forms of disease are essentially only manifestations of concealed internal morbid conditions. Many cases of caries are but symptoms of visceral tuberculosis. 11. Fistula ani, hæmorrhoids, and ulceration of the rectum, frequently betray internal morbid conditions, such as tubercle of the lungs, and phlogosis of the abdominal organs. 12. In surgical affections there may occur simple concomitants also, with given visceral lesions. Varicose ulcers, and sometimes simple, callous, chronic ulcers, are not infrequently associated, especially in adults and aged persons, with præcordial lesions. 13. No absolute law of symmetry prevails in these reverberations, although the internal affection is frequently found on the same side as that suffering surgically. 14. Death by tabes, in the sense understood by pathologists, occurs very rarely, if ever. Patients supposed so to die always present, on anatomical inspection, grave organic changes, and the results of recent acute processes. So, too, individuals dying from chronic internal affections, exhibit the consequences of recently supervening inflammation.—*Annali Universali di Medicina*, Vol. CLIV., Page 467.

EXCERPTA MINORA.

Cramps of Nurses.—M. Verdier draws attention to the severe cramps that are sometimes met with in enfeebled nurses, taking insufficient nourishment. They especially occur in lymphatic or scrofulous women, and several have been liable to hysteria. Any of the limbs may be the seat of the cramps, but the upper are so oftenest, while sometimes they are confined to the neck. The pains are sometimes excessively severe and prolonged. The affection seems to be more prevalent sometimes than at others. In treating these cases diet and regimen are of the first importance. A purgative should be given to clear out the *primæ viæ*, and then ether and opiates must be resorted to, in order to relieve the severe pain, and give time for the curative operation of the improved diet. Weaning is advisable where practicable, but when this is not the case recovery may still take place.—*Bull. de Thérap.* Tome L., p. 201.

Herpes Preputialis.—This affection, when obstinate and recurring, is very efficaciously treated by M. E. Vidal, by the application of the following ointment night and morning:—Glycerine 40; tannin 1.—*Bull. de Thérap.* Tome L., p. 224.

GENERAL CORRESPONDENCE.

ON THE DESIGNATION OF DISEASES BY THE NAMES OF THEIR DISCOVERERS; AND ON THE TITLE TO PRIORITY IN THE INSTANCE OF ENDOCARDITIS.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the *Medical Times and Gazette* of last week (August 30), there is the following paragraph:—

"Addison's Disease. Lecturing on an example of the bronze disease, shown by Addison to be so frequently connected with disease of the supra-renal capsules, M. Trousseau suggests that it should be denominated 'Addison's Disease.' He believes it an excellent practice to designate diseases by the names of those who have discovered or first correctly described them. We have at present 'Pott's disease,' and 'Bright's disease,' and M. Trousseau thinks the practice may be well extended. For example, it would be but an act of justice to term insufficiency of the aortic valves 'Corrigan's Disease,' and endocarditis 'Bouillaud's disease.'"

Without entering fully upon the question of the advisability

of the practice of thus designating diseases, which, as the probable source of confusion, is open to grave doubts, I would submit, that if the practice be admitted, the claims of the supposed discoverers should be well settled before their names are bestowed. It should be borne in mind that those who first "*correctly describe*" a disease, and so render their knowledge available to the science of medicine, are more justly entitled to such distinction than those who are the first simply to indicate the bare existence of any pathological state, while they leave to others the task and the honour of elaborating all those conditions which demonstrate it a separate disease, and put it practically within reach of the Physician.

Englishmen may justly be somewhat proud that they can claim the lion's share of this list of discoverers, thus apportioned by M. Trousseau. I am not, however, satisfied that we may not claim the whole list, and award elsewhere, than to M. Bouillaud, the honour due for the discovery of Endocarditis.

M. Bouillaud's "Traité Clinique des Maladies du Cœur" was published in 1835. In the preface there occurs the following passage:—

"Il est une autre phlegmasie aiguë du cœur dont nous avons *en quelque sorte* (a) créé l'histoire. Avant nos travaux, elle était si profondement ignorée, qu'elle n'avait pas même rien de nom; nous voulons parler de l'inflammation aiguë du tissu sero-fibreux que l'on trouve à l'intérieur du cœur."—(Vol. I. p. xvi. Preface.)

If we turn to the second volume (page 1) of this work we find that M. Bouillaud states that, in 1824 and 1826, he had already accumulated a large number of facts to show the existence, and describe the history, of endocarditis. His views, however, it appears, were objected to, on the ground that he was supposed to have mistaken post-mortem discoloration for the redness of inflammation. In 1828-29, M. Bouillaud had collected new facts enough to satisfy himself of the real existence of inflammation of the internal lining membrane of the heart. In 1831 ("depuis trois ans passés") he published his observations in an "*Enseignement Clinique.*"

An examination of M. Bouillaud's category of cases will help us still further to the determination of his title to having created the history of endocarditis. Of this series it is not until we come to the sixth case, dating December 2, 1834, that we meet with any mention of the *bruit de soufflet* as connected with acute endocarditis. The preceding cases merely record the post-mortem discovery of inflammation of the endocardium.

I beg particular attention to the dates here given, since these must be compared with subsequent statements, which will show that the existence of inflammation of the internal lining membrane of the heart was not unknown in England, before the time to which M. Bouillaud refers.

In 1831, Dr. Hope published the first edition of his work on Diseases of the Heart. Five years before that, he states, in the third edition (p. 170, footnote), that Dr. Latham had pointed out to him, in the year 1826, the connexion between the bellows murmur, and rheumatic pericarditis. Dr. Hope also states that Dr. Elliotson had in 1830 published, unknown to him, that the bellows sound was due to endocarditis. Nevertheless, in the "Lectures on the Theory and Practice of Medicine," delivered by Dr. Elliotson at University College, and edited by Drs. Cooke and Thompson, in 1839; it is stated, with regard to endocarditis:—"I can give you no symptom to detect it; you can only suspect it." The correctness of the editor's report is confirmed by MS. notes of Dr. Elliotson's lecture on pericarditis, delivered March 26, 1836. According to Dr. Hope, Dr. Stokes and Dr. Watson bout the same period, 1833 to 1835, described the sounds heard in cases of rheumatic pericarditis.

In the year 1828, Dr. Latham delivered, before the Royal College of Physicians, a series of "Pathological Essays on some Diseases of the Heart." These essays were published in the *London Medical Gazette* in December of the same year, and in the early months of 1829. The second essay, published December 27, 1828, was entitled "Morbid Anatomy of the Internal Lining Membrane of the Heart," which is there described at some length. In the fifth essay we find the following:—

"There is one symptom, derived from the new method of auscultation, to which I desire expressly to direct the attention of Medical men. When in acute rheumatism the pericardium becomes inflamed, *the contraction of the ventricle is accompanied, or immediately followed, by a distinct whizzing noise* (b), which is perceptible to the ear immediately applied to the chest, or by the help of the cylinder. *It is the 'bruit de soufflet,' as the French call it, the noise of the blowing of bellows. . . . . During three years, the sign in question, the peculiar sound accompanying the contraction of the ventricles, has not been absent in any one authentic case of rheumatic pericarditis. . .*

"In rheumatic pericarditis, the *brouissement*, or *bruit de soufflet, is always among the earliest symptoms referable to the heart, and sometimes the very first.*"

There is no work published by Dr. Latham which very distinctly states at what period he distinguished the bellows' murmur as belonging exclusively to endocarditis; but, before 1834, it was very constantly detected by that Physician, and pointed out to the pupils at St. Bartholomew's Hospital. In the year 1835, when I entered upon the Physicians' practice at St. Bartholomew's Hospital, that diagnostic sound was no longer regarded as a novelty.

It is clear from what has now been stated, that the distinction of designating by his name the disease in question, cannot strictly be accorded to M. Bouillaud, to whom, however, may be justly due the merit of having been engaged in simultaneous, but independent investigations on this malady. The same merit may be claimed for Drs. Hope, Watson, Graves, Corregan, and others; but to Dr. Latham, we believe, is due the honour in priority of demonstration of the disease and its symptoms.

The following chronological summary of the preceding remarks may serve to put the question in a clearer light:—

1824—26. M. Bouillaud collects materials respecting the existence of inflammation of the lining membrane of the heart, as discovered after death.

1826. Dr. Latham mentions to Dr. Hope and others the discovery of a *bruit de soufflet* in acute rheumatic inflammation of the heart, *during life.*

1828. Dr. Latham delivers his lectures at the College of Physicians on inflammation of the lining membrane of the heart, and *first correctly describes the diagnostic importance of the bruit de soufflet* during the lifetime of cases of acute rheumatic inflammation of the heart.

1828—29. Dr. Latham's lectures are published.

1831. Dr. Hope's work on "Diseases of the Heart" is published.

1833—35. Drs. Stokes and Watson publish cases of rheumatic diseases of the heart.

1835. M. Bouillaud's "*Traité Clinique* des Maladies du Cœur" is published, in which the first mention of the *bruit de soufflet*, in connection with endocarditis, dates 1834.

Having thus brought together, what I believe to be the facts of this matter, I leave the decision therein to the profession on both sides the British Channel.

I must add, that, although I have Dr. Latham's reluctant consent to the step I have here taken, I should have done the same had he withheld his consent, for I am not indifferent to the reputation of a revered preceptor; still less am I indifferent to the honour of British Medicine, the glory of which is herein concerned.

For these reasons, therefore, I presume to urge that, if the personal designation be adopted, it should be named "Latham's" not "Bouillaud's Disease."

At the same time, I would venture again to suggest that such a nomenclature is unscientific, and likely to cause much confusion.

I am, &c.

W. B. Kesteven.

Upper Holloway, Sept. 3, 1856.

(a) The italics are the writer's.

(b) The italics are the writer's, and are intended to direct attention to the chronology of this question.

DISLOCATION OF THE THIGH.

[To the Editor of the Medical Times and Gazette.]

Sir,—The infrequency of dislocations of the thigh may render the reports of such occurrences acceptable to you, especially at a time when new appliances are in the way of adoption. In the very few cases which have fallen to my care during a very lengthened period of practice, the pulleys (excepting in one case, a lad of about 10 years old) have in-

variably been resorted to, agreeably to the decided recommendation of my friends Mr. Cline and Sir Astley Cooper. It seems, therefore, to me only a becoming diffidence to hesitate to adopt a practice when not corresponding with such great authority.

I beg to narrate a case which has recently occurred to me. A thatcher, 52 years old, residing at Shenfield an adjoining parish, fell with great force from his cart. I was with him in less than an hour. He was expressing a sense of great pain in his hip, the limb was shortened and immoveable, the toe resting on its fellow, and though a healthy, not being a muscular man, the head of the femur was clearly traceable upon the dorsum ilii, leaving no doubt as to the nature of the injury. Not having the necessary "armamenta" with me, I at once adopted the plan, first and so successfully recommended by Mr. Cock, reported in the *Medical Times and Gazette*, June 1855. The man lying on the bed, on his back, I placed his knee across my shoulder, flexed the limb upon the pelvis, bending it a little outwards, an assistant rotating it at the same moment; in less than a minute the reduction was effected with a loud snap. Some tumefaction remains, but otherwise my patient is quite as well as can be expected.

I am, &c. Cornelius Butler, F.R.C.S.

Brentwood, Essex, Aug. 30, 1856.

POISONING BY STRYCHNIA.

[To the Editor of the Medical Times and Gazette.]

Sir.—In your number of the 15th instant, there is a case related of poisoning by strychnia, in which, after having fully, and apparently carefully, detailed the various symptoms produced by that poison, the author continues, "The nature of the case being no longer doubtful, we were not, however, thereby better enabled to relieve the unfortunate sufferer; we knew of no antidote. . . . At length he yielded, and with some apparent difficulty he swallowed forty grains of ipecacuanha powder, which had been mixed with some warm water; but no vomiting ensued."

Never having had an opportunity of witnessing the effects produced by an overdose of strychnia, on the human subject, it is not my intention to offer any observation upon the phenomena caused by its administration, or to make any remarks on its modus operandi.

Without, however, entering into any controversy as to its primary action on the stomachic nerves, or its previous absorption into the circulation, and its subsequent action on the anterior or motor branches of the spinal chord, it may perhaps be worth inquiry whether, in a case of such moment, where the life of a fellow-being was at stake, it would not have been more judicious to have attempted to clear the poison from the stomach at once by means of a direct tonic emetic (as the sulphate of zinc or copper), which excites vomiting almost immediately after its exhibition; instead of giving ipecacuanha, which, not to speak of the great danger incurred by the unwonted activity taken on by the absorbent system, arising from the increased action of the heart and arteries, requires, together with the vegetable emetics in general, a much longer time for its operation.

It might, perhaps, also have been well to have given the tincture of iodine, which is said to be an antidote.

In all cases of emergency, and especially in cases of poisoning, the great importance and the high value of time should never be lost sight of. At the same time, we should bear in mind, how necessary it is to have a clear and thorough acquaintance with the action of medicinal agents, in order to reason correctly on their effects, and thereby prevent those errors in practice, which in many cases, perhaps by a due foreknowledge of their uses, might have been avoided, and which, in after life, cannot but tend to excite feelings of regret.

I am, &c., J. S. Lowdell.

Park Road, Stockwell, August 27, 1856.

Cholera at Stockholm.—There had been no new case of cholera within the past week, and it is hoped that the epidemic has totally ceased.

Sir John Ross.—Many of our readers will hear with regret that this gallant Arctic Voyager died on Saturday last, aged 76.

REPORTS OF SOCIETIES.

CRIMEAN MEDICAL AND SURGICAL SOCIETY.

April 19, 1856.

Sir John Hall, M.D., K.C.B., in the Chair.

(Concluded from page 227.)

Dr. Taylor, C.B. considered that the paper which had just been read must disturb the confidence with which we had been in the habit of administering chloroform in all cases of operation. If he understood Dr. Mouat's paper, the author conceived that there were secondary as well as primary or immediate risks attending its use. The cases adduced did not seem to him to bear out that view. What had been regarded in these instances as secondary fatal effects of the anæsthetic agent appeared to him (Dr. Taylor) rather as the consequences of severe operations, superadded to extensive injuries. He had not heard of direct fatal effects from chloroform in any of the severer forms of injury of gunshot wounds; on the other hand, he could not say that in this class of cases, he was convinced of any supporting power in the use of chloroform, and this, he believed, was the question mooted by Mr. Guthrie. As there was a remote risk of fatal effects from chloroform, of the primary or immediate kind, Dr. Taylor did not think it advisable to administer chloroform for the minor operations, as the extraction of bullets, teeth, and the amputation of lacerated fingers. It was, too, just in this class of cases that fatal consequences had been more frequently found to occur. The caution not generally insisted on by writers on the administration of chloroform, was the necessity of the fully recumbent position. Dr. Snow did not appear to have noticed this point; but Mr. Syme particularly dwells upon the necessity of it in all cases, however trifling their nature. It was curious that one fatal case in this Army occurred, in which chloroform had been administered to the patient in a sitting position, or, rather, merely reclining. Dr. Taylor thought that abundance of fresh air was a great essential; and he had observed during this war, that the chloroform took effect more benignantly in cases operated on in the open air.

Dr. Gordon, C.B., entirely concurred in the views expressed by the author, and seldom employed chloroform in severe cases. He thought that considerable risk was entailed. The case he remembered of an officer, which proved fatal in five hours, and another, in which the operation was necessarily stopped, chloroform was employed in the dose of two drachms. The Medical Officers of the Division generally agreed with him in the inadvisability of employing chloroform in serious cases. He produced some statistics, and considered that in many of his cases the men would have died if chloroform had been used.

Dr. Sall confessed himself a great advocate for the use of chloroform; and was well acquainted with its inventor. He had never seen a fatal case under its use in Edinburgh, where he had seen it employed for many severe operations; also at Glasgow. A statistical table would be of advantage. As to the use of chloroform during this war, much, of course, depended on its purity; and the manner of using it is most important. He would have no hesitation in using it in any case, even if organic disease should exist.

Mr. Wyatt considered that chloroform was a powerful agent for good or evil, according as its use was confined to particular cases adapted to its use; but how could these be ascertained beforehand? He must premise his observations by saying that he believed there were certain general conditions of system when chloroform was a very doubtful auxiliary to Surgical practice. He more particularly alluded to those severe cases of injury requiring prompt and immediate amputation, after an action in the field, when it was most important that a speedy reaction should be fully and promptly established. From what he had seen, he must confess that the result of his experience during this war led him to hesitate before admitting himself an advocate for the indiscriminate use of chloroform, and feeling conscientiously that there was a certain amount of risk attending its use, he never took upon himself the initiative

of recommending it to a patient. He had witnessed, both in civil and military practice, some unfortunate results, which must undoubtedly be attributed to its use, and even where it had been administered by skilful people; but, of course, unless positive causes for the prohibition of its use exist, it is the duty of the Surgeon to consider the patient's importunities to be released from pain, but, until convinced to the contrary, he should still hold the opinion that it was not a remedy to be used indiscriminately in the severer injuries on the field. The remarks of Dr. Taylor respecting position, and the necessity of a sufficiency of atmospheric air, were most true and practical. Considering that deaths from pyæmia during this war had been more than usually frequent after amputations, he would throw out the suggestion, whether the frequent—he would almost say, the indiscriminate—use of chloroform could in any way be connected with the results stated.

Dr. M'Leod would be sorry if the statements which had been made on the use of anæsthesia in Military Surgery should go forth to the world; as he believed them to be neither correct, nor in unison with the opinions of the majority of Army Surgeons. He did not think there was anything peculiar in gunshot wounds, which made the exhibition of chloroform in them not as admissible as after the severe machinery and railway accidents of civil life, where its use was universally allowed to be so beneficial. Dr. Mouat had fallen into an error in saying, that Dr. Simpson's experience and the statistics he furnishes refer solely to obstetric medicine. Dr. Simpson published a paper in answer to the question, whether anæsthesia increases or diminishes the mortality of surgical operations, basing his deductions on the results of amputations of the thigh, leg, and arm, in thirty of the chief British Hospitals, and he has shown, that the lives of 6 persons in every 100 submitted to these operations have been directly saved by the use of anæsthesia. In the case of thigh amputations alone, he also shows that a large diminution of the mortality has resulted. Dr. M'Leod did not think that death was justly due to the chloroform in the few cases recorded by Dr. Mouat, who had spoken of an immediate and remote danger as following its use. The immediate danger he considered, in almost every case, arose from the real administration of it; and as to the remote, he could not see the logic of the deduction, which ascribed death 24 or 36 hours after the performance of a severe operation under chloroform to the use of that drug. We saw sometimes such fatal results without chloroform, which, in his opinion, would often enable an operation necessary to the prolongation of life to be performed, which otherwise could not be attempted. He considered that the respiration was the great guide to the administration of chloroform, and he showed the propriety of observing how death threatened, in order to ward off the danger of an over-dose. As to its being a cause of pyæmia, the idea was not only new but remarkable.

Dr. Williams thought they had wandered from the subject in considering the general use of chloroform. He had never seen a case where any bad results had arisen; and he must confess, that he had never heard any paper read with greater regret, giving, as he must suppose, the opinion of so conscientious and experienced a member as Dr. Mouat; but until he saw its effects, as explained by the author, he must reserve any opinion on the subject of the present discussion.

Dr. Burke, 3rd Buffs, had alluded to this subject formerly, and could speak in a most satisfactory manner of chloroform. One case only of amputation at the shoulder-joint proved fatal after its use, but the severe nature of the operation caused this patient's death. He certainly would not recommend the use of chloroform in minor operations. He had served in the Sutlej campaign, where the operations were disheartening, that was, before chloroform was known; and he thinks that the operations would have been more successful under the use of chloroform. In an excision requiring prolonged time for its completion, he considers it most useful, and in none more than that of the elbow.

Dr. Bone, 17th Regiment, saw the three first cases in Edinburgh when chloroform was first used. He considered that it was always most important to examine the chest previously, to ascertain if any organic disease existed. He had kept a woman under its influence for nine hours, and felt convinced that many lives after the reception of gunshot wounds were saved entirely by the use of chloroform. He mentioned a case of severe gunshot wound of the thigh, where it was most successfully employed. A case of tetanus under his care, has been kept for three weeks under the use of chloroform occasionally for nine hours at a time, and the man recovered.

Dr. Gordon alluded to the Sutlej campaigns, where the operations were generally very successful. Out of twelve operations performed in his regiment, one only was fatal. In the 24th Regiment, during the Punjaub campaign, the general success of all the operations was very great. The returns of operations performed in the 2nd Division showed that fifty-three had taken place under chloroform, and forty-three without its employment, for the quarter ending September 30.

Dr. Crawford would beg to return to the real objects of the discussion, and to say, that it not being the custom of military Surgeons to operate during shock, the objections to the use of chloroform at that period fell to the ground.

Dr. Jessop alluded to a letter of Dr. Kidd in the *Medical Times and Gazette* of April 5, showing the safety of chloroform in gunshot wounds. Dr. Robinson had performed twelve capital operations under the influence of chloroform, with only one immediately fatal result; and he had very frequently used it himself in minor operations.

Dr. Crawford thought that the heading of Dr. Mouat's paper should be changed, or it would lead the Medical public to suppose that they operated under shock.

Dr. Thornton has used chloroform many times, and seen it employed many times, without any fatal result. He did not think that pyæmia is ever induced; but that the special fatal termination alluded to by Mr. Wyatt depended more on the general scorbutic constitution of the men.

Dr. Mouat begged to reply. He believed that it was the custom of all debating societies to adhere strictly to the question at issue. In the present instance, just what he had anticipated had occurred. The real question had been lost sight of, and had merged into that of the administration of chloroform generally. Some members of the Society had quite misapprehended his meaning, in supposing he could be guilty of departing from such an obvious acknowledged maxim as non-interference during the immediate shock of a severe wound. He was much obliged to Dr. M'Leod and others for correcting any errors he might have fallen into, in the absence of books and authorities. The inference to be drawn from Dr. M'Leod's lecture was, that we did not know how to administer chloroform, and he must, therefore, again refer him to the paper, which distinctly stated that it was administered in the usual way—in the recumbent posture, and with all the necessary precautions enjoined. The subject of the primary and secondary fatal cases had been alluded to, and he thought that the first part of the question could not be disputed: patients did sometimes die under the influence of chloroform; he had adduced three or four cases which could not be contradicted; he had likewise introduced what he considered a somewhat new view of the subject, which had not been fairly replied to; he alluded to those cases in which patients "never fairly rallied;" in which there was a continuous state of nausea, and the desire for food never returned, the patient sinking gradually, without any perfect reaction having been established. He considered that many such cases might fairly be termed "deaths from chloroform," although it might be difficult to separate and distinguish such cases. From what he had seen during the war, he felt no doubt of their existence. The real difference of opinion between himself and those gentlemen who had advocated opposite views was not so great as at first sight appeared. He was an advocate for the administration of chloroform, but not for its indiscriminate use. He was much obliged to Dr. Burke for kindly furnishing him with another case of death from chloroform, in support of his views; and was glad to find that he agreed with him in the propriety of not administering it in trivial accidents and injuries. The Society likewise appeared to be with him on this point; indeed, plainly speaking and independent of other considerations, it was impossible to administer chloroform in every case. After a general action, for instance, the loss of time—in each case unavoidable—would quite upset the notion that it could be always employed. Every one who had witnessed the numerous operations at the General Hospital, must have been struck with the length of time it was often necessary to keep patients on the table, to enable them to rally from the chloroform insensibility. He concluded by stating that it was impossible to follow every gentleman who had spoken on this subject, many had so entirely wandered away from it; but if he had omitted to answer any

material question, on being reminded of it, he should be perfectly ready to do so.

Dr. Jessop thought that the amputation of a finger was a painful process, and required the administration of chloroform equally with amputation of the leg, and should by no means be considered one of the minor operations.

Dr. Hume proposed that the meeting should be adjourned, when other members being present, the subject might be again discussed.

Dr. Rogers proposed, and Dr. Williams seconded, a vote of thanks to the author.

APOTHECARIES' HALL OF IRELAND.

The following Circular has been addressed to their Licentiates by the above Corporation :—

Apothecaries' Hall, Dublin, August 29th, 1856.

Dear Sir,—A demand having been made by the Government for an authentic list of the qualified Apothecaries in Ireland, for the purpose of enforcing the law against all persons who are found acting in that capacity without "the Licence" of the Hall, the Governor and Council transmit herewith a copy of their last published List, and request that you will be so good as to assist in its correction, by returning to their Secretary the names, residences, titles, and appointments, *in full*, of all the persons who are practising as Apothecaries in your district, in order that your return may be compared with the Registry, and duly certified for publication.

The Governor and Council desire to avail themselves of the present occasion earnestly to impress on their Licentiates the important duty of making use of every precaution in keeping and vending Poisonous Agents, so that all mistakes and casualties from these sources may be guarded against; and they therefore recommend, that all agents of this description be kept distinct and apart from other medicines, each having, in addition to its special label, the word "poison" or "*cave*" affixed to it; and also, that no one of them be sold to the public, except as ingredients in Medical prescriptions, without a knowledge of the purchaser, and without obtaining his or her signature and address in a book to be kept for that purpose.

The Governor and Council wish, at the same time, to direct the attention of their members to the subject of the adulteration of medicines, as revealed in the late Parliamentary inquiry, and to urge upon them the necessity of submitting to careful analysis such commercial articles as are liable to be sophisticated; so that the purity and efficiency of all drugs and preparations used in dispensing be secured; and with the request, that the particulars of this communication be made known to all Apothecaries in your neighbourhood.

I remain, dear Sir, your very obedient servant,

Charles Henry Leet, Secretary.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of Medicine, and received certificates to practise, on Thursday, August 28, 1856 :—

Davies, J. W., Blackwood, near Newport, Montgomerys.
Hey, William, Borrowash, near Derby.
Olivey, Hugh Pengilly, Myton, near Falmouth.
Meadows, Alfred, Ipswich.
Richards, David, Llandovery, S.W.

DEATHS.

Sproat.—Aug. 28, at Rockville, near Kirkcudbright, N.B., Dr. John Sproat, for many years in practice in Melbourne, Australia.

Tomlinson.—Aug. 27, at Foley-place, Regent-street, James Francis Tomlinson, Esq., Surgeon, Maldon, Essex, aged 62 years.

M. de Humboldt, it is expected, will preside at the Congress of Naturalists and Physicians which is to meet at Vienna from the 16th to the 23rd of this month. Upwards of 4000 names are already given in, as signifying attendance.

Death of Mr. Yarrell.—Mr. Edward Jesse, noticing this melancholy event, which occurred suddenly at Great Yarmouth, on the 1st instant, writes :—"Mr. Yarrell, as is well known, was one of our best naturalists. This was shown in his beautiful works on British birds and British fishes, and in several valuable and interesting papers in the Transactions of the Linnæan and Zoological Societies." Mr. Yarrell, as an ichthyologist, in conjunction with Mr. Jesse, solved the problem which had perplexed naturalists from the days of Pliny, as to the history of the eel. He clearly proved that they were oviparous, had scales, and bred for the most part in the brackish water at the mouths of the rivers. Mr. Yarrell was in his 72nd year.

The honorary degree of M.D. has just been conferred by the University of New York, U.S., upon Dr. Stanhope Templeman Speer, of Cheltenham.

Small-Pox in Scotland.—This disease is on the increase in Aberdeen, Edinburgh, and Paisley, having caused 10 per cent. of the deaths in Aberdeen, 5½ per cent. in Edinburgh, and 5 per cent. in Paisley.

Infantile Mortality.—Mr. Wilson, the Registrar of the Sub-District of St. John, Marylebone, writes to the Registrar-General as follows :—"Four of the cases in my present return are deaths of infants not more than four months old, from want of breastmilk, marasmus, and diarrhœa; and I have frequently met with cases of a similar nature in the course of my duty as Registrar. They relate to children who have been put out to nurse at a very early age, and have died shortly afterwards. In all the instances of this week and most previous ones the parents are represented to be domestic servants; in one case, though married, they lived with different families, and passed for unmarried. Sometimes the child is put away that the mother may go as wet nurse, at others that she may return to service. There are in most neighbourhoods (particularly suburban ones) poor people who make it an occupation to take charge of such children, their object of course being to derive a profit from the small weekly allowance given with them. These payments, as may be supposed, are often made irregularly; the infant, in some cases which I have known, is entirely abandoned, and, after much suffering, is taken to the workhouse; in others being deprived of natural nourishment, and ill supplied with any substitute, it becomes the victim of some infantile disease which is assigned in the Medical Certificate as the *primary*, when in reality it is the *secondary*, cause of death. I believe that this fatal termination in some cases which I have noticed was the result anticipated, and even desired, by the parent; but in others I am certain it could be avoided, if some means existed by which such children could be provided for, with proper care and at a moderate expense. My opinion on this matter is shared by the other Registrars of this District; and a case which has appeared in the newspapers for this week, and which I beg to enclose, convinces me that fatal results from such causes are not uncommon elsewhere."

Mortality in Scotland.—The following is the Monthly Return of Births and Deaths in eight principal towns of Scotland for July :—During the month of July there were registered in the eight principal towns of Scotland 2658 births, of which 1371 were males, and 1287 females; 1706 deaths, of which 838 were males, and 868 females. Allowing for increase of population, this would give at the rate of one birth annually in every 27, and one death in every 41. Of the 1706 deaths, 806, or 47 per cent., were under five years of age. The proportion of deaths under five years of age in the different towns was, in Perth, 27 per cent.; in Aberdeen, 34; in Edinburgh, Paisley, and Greenock, each 42; in Leith, 50; in Glasgow, 51, and in Dundee, 58. The deaths from the zymotic class of diseases amounted, in the eight towns, to 478; thus constituting 28 per cent. of the total mortality. The proportion of deaths from that class of diseases in the eight towns was, in Perth, only 13 per cent. of the total mortality; in Glasgow, 24 per cent; in Aberdeen and Paisley, each 25; in Edinburgh, 28; in Dundee, 32; in Greenock, 34; and in Leith, 44 per cent.

Mortality Notabilia.—The present return shows a continued improvement in the public health. In the three previous weeks the deaths registered in London were 1232, 1250, and 1122; last week they were 1081. The present rate of mortality is very near the average rate of corresponding weeks in ten previous years. The deaths caused by diarrhœa,

ORIGINAL LECTURES.

LECTURES
ON THE
VARIETIES OF CONTINUED FEVER AND THEIR DISCRIMINATION.

DELIVERED AT

St. Thomas's Hospital.

By THOMAS B. PEACOCK, M.D.,
Assistant-Physician to St. Thomas's Hospital, etc.

Lecture V.

ON THE RELATIONS OF TYPHUS AND TYPHOID FEVER.

In my last lecture I described to you the general symptoms and morbid appearances of typhoid fever. In the present, I propose to inquire how far we are justified in adopting the view advanced at the commencement of the course, that typhus and typhoid are not mere varieties of the same disease, but distinct specific forms of fever.

I have already mentioned, that, with the advancement of Medical science, the tendency has been to limit the so-called essential fevers, and to ascribe the constitutional symptoms to local causes, and especially to lesions of the gastro-enteric mucous membrane. Various writers have at different times described inflammation and ulceration of the mucous membrane of the bowels as occurring in fever, but such appearances were only regarded as accidental complications, arising from peculiarities of climate or season, or in particular forms of disease. Thus the characters of the typhoid fever of Paris were well described by Petit and Serres, in 1813, under the name of "fièvre entéro-mésentérique." Broussais, (a) however, ascribed much greater importance to the inflammation of the gastro-enteric mucous membrane, regarding it as existing in all cases of fever, and contended that the febrile symptoms were the direct effects of such local disease.

In 1826 M. Trousseau (b) gave an account of M. Bretonneau's observations on typhoid, as he had observed it at Tours, under the names of "Dothinenterie," or "Dothinenterite." In 1827, Dr. Bright (c) published several cases, affording examples of the intestinal disease occurring in the fever of London; while Dr. Alison showed its almost constant absence in the epidemic fever of Edinburgh. (d) In 1829, the first edition of M. Louis's work appeared, in which he illustrated most fully and philosophically all the features of the typhoid fever of Paris, both during life and after death, and in particular demonstrated the constancy of the intestinal disease. Dr. Tweedie and Dr. Southwood Smith, in 1830, reported, however, that in London, while the intestinal disease generally occurred, it was also very frequently absent; and in 1836, M. Lombard, (e) who was well acquainted with the morbid appearances of typhoid fever, as he had observed it both in Paris and in Geneva, having had an opportunity of witnessing post-mortem examinations of cases of fever both in Glasgow and Dublin, was not a little surprised to find that the intestinal disease, which he had believed to be a constant feature of the disease, did not always exist in the English fevers. The first impression produced by these observations was to raise doubts in Dr. Lombard's mind as to the importance of the intestinal lesion as a constant occurrence in fever, while he still held to the identity of the two forms of fever. Subsequently, however, after he had seen more of the English fevers, he adopted the view that there were here prevalent two distinct forms of disease—typhus, which he regarded as originating in Ireland, and as propagated by contagion by the Irish labourers; and typhoid, which was an endemic disease, precisely similar to that with which he was previously familiar.

In 1836, Dr. Gerhard (f) published an account of an epidemic of typhus in Philadelphia, in which, while the symptoms and morbid appearances bore entire resemblance to the typhus of this country, they presented very marked distinctions from the typhoid fever, or dothinenterite, which he had before met with in the United States, and which he had found to be in every respect similar to the typhoid fever which he had studied in France; and he hence inferred the specific difference of the two diseases.

Such was the state of the question when, in 1838, the Academy of Medicine proposed for the subject of a prize, the investigation of the analogies and differences between typhus and typhoid fevers (g). This led to the publication of the Essays of Gauthier de Claubry and Montault, (g) the former of whom contended for the two fevers being one and the same disease, while the latter inferred their specific distinctness.

In 1839 M. Valleix entered into an elaborate investigation of the respective features of the two forms of fever, founded upon the reports of fourteen cases collected by Dr. Shattuck, of Boston, at the London Fever Hospital; and he was led to adopt the conclusion that the fevers of this country embraced two distinct species—one, an essential fever, typhus; the other, typhoid, which is identical with the typhoid fever of Paris.

In 1839 Drs. Henderson and Reid published a report (h) on the typhus fever of Edinburgh, in which they investigated fully and carefully the symptoms of that disease during life, and the appearances of the body after death, and established the almost constant absence of any abdominal symptoms and of the intestinal lesion. On the other hand, they published a communication from Mr. Goodsir, showing that a fever,—every way similar to the French typhoid, prevailed endemically in some adjacent districts.

In 1840, Dr. Stewart, who had closely studied both typhus and typhoid at the Glasgow Infirmary, and the latter disease in Paris, published an able memoir, (i) in which he advocated the non-identity of the two diseases; and, in the following year, M. Louis, in the second edition of his work, adopted the same view.

The peculiarities which distinguish the two diseases, and which have been relied upon as indicating their specific difference, may be briefly stated as follows:—

1. The mode of invasion of the two diseases is generally very different. Typhus usually attacks suddenly, and rapidly produces such prostration of strength as to compel the patient to seek medical relief at an early period. Typhoid is usually more gradual in its mode of invasion, and less rapidly advances; so that the time at which the cases come under treatment is usually much later.

2. Typhus can generally be traced to contagion; the origin of cases of typhoid is often very obscure, and the disease, most probably, generally originates in common causes, or, at least, is very much less contagious.

3. Typhus affects persons at all ages, both those in early and in advanced life, though most common during middle age. Typhoid affects chiefly young persons, and very rarely those more than 40 years old.

4. The eruptions which characterize the two diseases are different in their form, mode of appearance, and progress; that of typhus assumes the form of a rash, is not, except at the very commencement, elevated above the surface, and has a livid-rose colour, and subsequently becomes petechial; that of typhoid consists of several spots, few in number, always elevated, and of a pale-rose colour. The typhus rash appears at an early period, follows a regular course, and its disappearance is usually succeeded by convalescence at the end of a few days. The typhoid spots come out a few at a time, and continue to make their appearance in successive crops, and their final disappearance may precede for many days the establishment of convalescence.

5. The predominant symptoms in typhus are ordinarily those of prostration of strength and of cerebral disturbance; while the evidences of gastro-intestinal disorder are of minor importance and frequency, and, indeed, are often absent. The symptoms of disorder of the gastro-enteric mucous membrane are, throughout the progress of typhoid, predominant; while the cerebral symptoms are less constant and usually less severe, and the prostration of strength is also generally less.

6. The duration of an attack of typhus is comparatively

(a) Examen de la Doctrine Médicale, Paris, 1816.
(b) Archives Générales de Médecine, Tome X., 1826, p. 67.
(c) Reports of Medical Cases, Vol. I., p. 178.
(d) Edinburgh Medical and Surgical Journal, Vol. XXVIII., p. 233.
(e) Dublin Journal, Vol. X., pp. 17 and 101.
(f) American Journal of Medical Science, Vol. XIX. p. 289.
(g) Mém. de l'Académie Roy. de Méd. T. VII., pp. 157. 185.
(h) Ed. Med. and Surg. Journal, Vol. LII.
(i) Ed. Med. and Surg. Journal, Vol. LIV. p. 289.

short, and is limited to a tolerably definite period. Typhoid is usually of longer duration, and is less regular in its course; some cases being short, others very much prolonged.

7. In typhus, when convalescence is once established, the progress of the case to recovery is generally satisfactory, and true relapses seldom, perhaps never, occur. In typhoid, relapses are of by no means infrequent occurrence, and inflammatory affections of the viscera and serous membranes frequently supervene during convalescence.

8. Typhus usually proves fatal during the second week of illness, and rarely after the expiration of the third week. Typhoid, though it may prove fatal at as early a period as typhus, usually destroys life in from the third to the fifth week, and occasionally death takes place at a much later period.

9. After death from typhus, the only constant pathological condition found in the body, is the altered state of the blood, and the follicles of the intestinal mucous membrane never present any appearances of disease. In fatal cases of typhoid the follicular disease of the intestines is of constant occurrence.

These circumstances certainly afford broad grounds of distinction between the two forms of fever; but it has been contended that they do not prove their specific distinctness.

1st. It has been argued that the absence of the intestinal lesion in typhus is owing to the much earlier period at which death occurs in that disease than in typhoid. This objection does not, however, apply; for, though the period of death in typhus be earlier than in typhoid, it is not too early for the intestinal disease to have appeared; while occasionally typhus proves fatal at a late period. Of the cases of typhus to which I have referred in my first lecture, one proved fatal from pneumonia on the thirty-first day from admission, the precise duration of illness not having been ascertained; and I have examined cases which have died on the nineteenth to the twenty first days of illness without meeting with any evidence of intestinal disease; indeed, after death, at the latest period, the solitary and aggregate glands are even less distinct than in cases proving fatal in the earlier stages. Of the cases of typhoid also one died on the seventh or eighth day of serious illness, and yet in that instance the plates were not only greatly enlarged and much inflamed, but in places sloughs had already formed; and I exhibited to you a portion of intestine from a patient who died on the fourteenth day, which exhibited the most extensive and advanced disease. M. Chomel, indeed, infers, from the observations collected by M. Louis and himself, amounting to 92 in number, that, in typhoid, ulceration commences in the plates from the eighth to the twelfth or fifteenth day at the latest.

2ndly. It has also been contended that the peculiarities of the eruption on the skin, and the presence or absence of the intestinal affection in the two forms of fever, may depend on the relative vigour and age of the subjects attacked;—that typhus is a disease of the young and robust, typhoid of the aged and infirm or debilitated. But this is not the case; typhus appears sufficiently frequently in young subjects to prove its features to be similar in them and in the aged. The disease also may be conveyed by contagion to persons under the most diverse conditions, and yet in all, however its malignity may vary, its general features remain the same.

3rdly. It has been supposed, that the disease of the intestinal follicles is only an accidental complication, superinduced by peculiarities of local climate or epidemic influence. This argument would possess much force were the two diseases never found to prevail coincidently in the same localities—if the fever which prevails in one locality were always typhus, as is ordinarily the case in Edinburgh; or always typhoid, as in Paris. It fails, however, entirely to explain, how, in other localities, as in London for instance, we sometimes meet with one and sometimes with the other form of fever; and each of them, instead of being modified or displaying certain intermediate gradations, is found to present its clearly defined and characteristic features. For the establishment of the latter point we are indebted to Dr. Jenner (j), who, for a period of three years conducted a most elaborate investigation into the history, symptoms, and morbid appearances in the cases of fever treated at the Fever Hospital; and he has conclusively shown that the typhus of London is as distinctly marked as that of Edinburgh, and the typhoid as that of Paris. In this state of the question it must, I think, be admitted, that the argument preponderated in favour of the non-identity of typhus and typhoid; but Dr. Jenner was able to furnish still more conclusive evidence of their distinctness. He has shown, that during the years 1847, 1848, and 1849, in all instances in which two or more cases of fever were admitted into the Fever Hospital from the same house, with one solitary exception, whatever was the character of the case first received, such also was that of the cases subsequently admitted; and he has justly concluded, that if the diseases were not propagated by separate contagions or poisons, there would certainly have been numerous exceptions to this rule, instead of the solitary one I have referred to. This, too, could hardly be regarded as an exception. It was the case of a boy received labouring under typhoid after his father had been previously admitted with typhus; but the boy was from home till after his father's removal to the Hospital.

The constant absence of any evidences of intestinal disease in typhus was confirmed by a report published by Dr. Reid (k) of the pathology of fever in Edinburgh in 1842, which embraced no less than 100 examinations; and in 1843 (l) by one by myself, detailing the results of examination in 31 other cases. These several reports give a total of 161 cases of fever examined between the years 1838 and 1842, in only 11 of which was the follicular disease found, or in about 1 in 14 cases. Dr. Bennett, however, (m) in 1846 and 1847, found the follicular disease more frequent in Edinburgh; or, in 19 out of 63 cases examined after death; but, as this report is not accompanied by any statement of the features of the cases during life, so far from invalidating the general conclusion, it only proves that, at the period in question, typhoid was unusually prevalent in Edinburgh. Of the cases of fever in which the intestinal lesion was found, examined by Dr. Reid and myself, all were admitted into the Infirmary from districts adjacent to Edinburgh, and not from the town itself; or, if so, had come to Edinburgh labouring under the disease.

After having had my attention for several years specially directed to these points, I have seen no exception to the rule, that the fever characterized by the general features and eruption of typhus is unattended by any lesion of the intestinal mucous membrane; or that the equally marked disease characterized by the rose-spots of typhoid is as constantly connected with the follicular disease. These facts have also recently been confirmed by Dr. Wilks from his experience at Guy's Hospital; and similar evidence has been brought forward by other writers both in this country and in America.

At the time when Dr. Jenner's paper was read at the Medico-Chirurgical Society in 1849, I was induced to look over the notes of the fever cases which I had treated at the Royal Free Hospital, to which institution I was then attached; and I found that, though these observations had not been collected with any reference to that investigation, in every instance where two or more members of the same family were admitted into the Hospital, the character of the fever corresponded in all the cases. Since this time, while I have been connected with St. Thomas's Hospital, I have equally directed my attention to this question. I have seen many instances in which several persons of the same family or from the same house, have been admitted with fever, or have been labouring under fever, and have found no exception to the rule, that all the cases in such instances corresponded in character. Very recently we have had several sets of cases of typhus occurring in members of the same family or in the same house; as, two patients under my care in Jacob's; three of a family under Dr. Bennett, Dr. Bristowe, and Dr. Goolden; and two of a family under Dr. Barker and Dr. Goolden. Yet in all these sets of cases the character of the fever was identical.

We have also in the General Hospitals, the opportunity of observing what in the Fever Hospital could not be seen,—patients labouring under other diseases becoming affected by typhus, from their vicinity to typhus patients. Of the cases to which I have referred, in six the disease was thus contracted, and very recently three or four similar instances have occurred. In these cases the character of the fever always corresponds with that of the case from which the others are

(j) Medico-Chirurgical Transactions, Second Series, Vol. XV., 1850, page 23.

(k) Lond. and Ed. Journal, 1842.
(l) Lond. and Ed. Monthly Journal, 1843.
(m) Ibid. 1848, N.S. Vol. II. p. 299.

derived. I have, indeed, seen typhus affect persons under the most diverse circumstances,—old and young persons, medical students, nurses, persons in depressed state of health, from unhealthy districts of town, and others in robust general health, and fresh from the country; but I never observed any material modification of the character of the disease, though, of course, its intensity or malignity will vary. If, however, the poison of typhus and that of typhoid were the same, it is impossible to doubt that, instead of all the cases being characteristically cases of typhoid, some would be cases of typhus and some of typhoid; while others would present more or less of the characters of the two diseases.

I have recently treated a case, regarded as an ordinary instance of typhoid, and which passed favourably through the disease, and recovered, so that the patient was able to walk about the ward; he then was again taken with fever, having the usual features of typhus, and characterized by a typhous rash on the skin. In this instance, the patient lay in a bed near one occupied by a typhus patient, and appeared, during his convalescence from typhoid, to have contracted typhus. Facts of this kind must be regarded as strongly upholding the doctrine of the specific difference of the two diseases; for it is well ascertained, that both affections—like the eruptive fevers—confer, to a great degree, immunity from subsequent attacks.

Lastly, Dr. Jenner has shown that typhus and typhoid may be epidemic at the same time, or the one disease may decline, while the other is becoming more prevalent, or *vice versâ;* and we have continual opportunities of observing this to be the case. Often you will find many cases of typhoid in the Hospital but only one or two of typhus; at other times, and such is now the case, the typhus cases will be much the most numerous.

With these various facts before us, there can be no longer much hesitation in adopting the conclusion, so ably illustrated, and, I think, fully established by Dr. Jenner, that typhus and typhoid are specifically distinct diseases. There may, it is true, be sometimes a difficulty in deciding as to which class a given case should be assigned. The typhus eruption may be more discrete than usual, the spots may be more distinctly defined, and when they first appear may be unusually elevated; and thus, at first sight, the eruption may bear a very close resemblance to that of typhoid. On the other hand, the eruption of rose-spots in typhoid may be mingled with a petechial eruption, which may assimilate it to the typhous rash; or, from the presence of other eruptions on the skin, the characters of either rash may be disguised. There may thus be difficulty in deciding as to the true nature of the eruption, but this difficulty will generally vanish on careful inspection, or, at any rate, on watching the progress of the case. I do not recollect to have ever failed to make up my mind as to the kind of eruption at the time I first saw the patient; or, on further examination a day or two after, to have found that the opinion first formed was incorrect. Were, however, the difficulty of distinguishing the two diseases much greater than it really is, this would not prove their identity; it would only show, as contended by M. Louis, that they formed no exception to the rule, that most diseases, even some of those which are the best understood, are occasionally difficult to discriminate.

While, however, typhus and typhoid are distinct diseases, they are, nevertheless, very closely allied. This, at first sight, might scarcely appear to be the case; for typhus presents the type of an essential fever, unconnected with local disease; while typhoid is always associated with the intestinal affection. This difference is, however, more apparent than real; for in typhoid, as I have before mentioned, there is not any certain or constant relation between the intensity of the general symptoms and the amount of local disease. The intestinal affection can, therefore, only be regarded as one symptom or result of the essential disease. Both affections are thus closely allied to the eruptive fevers, while they are markedly distinct from the intermittent and remittent fevers dependent on malaria.

But, it may be asked, what is the advantage of thus elaborately drawing the distinction between these two forms of fever? Much every way. In the first place, though the practical application should not be now apparent, the extension of our knowledge would yet be desirable; for it cannot be doubted that all advances in our acquaintance with diseases must altimately prove useful in practice. But the distinction between typhus and typhoid is one which is full of importance. The prognosis in the two diseases is different; and, though the principles which should guide our treatment may be similar in both, they must be greatly modified in their application by the peculiar character of each.

ORIGINAL COMMUNICATIONS.

CICATRIZATION OF THE OS UTERI, AND PARTIAL DESTRUCTION OF THE CERVIX, FROM THE IMPROPER USE OF CAUSTIC.

By Dr. RIGBY.

Mrs. G., aged 24; married 2½ years; one child; fair and excitable.

May 28, 1853.—Complains of loss of strength, giddiness, sickness, loss of appetite, and depression of spirits. Dull aching pain round the loins, increased on exercise. Says that her bowels are regular. Pulse feeble. Leucorrhœa. Tongue clear at the edge, and rough in the middle. Supposed herself to be pregnant last October, but the catamenia have appeared since at irregular intervals (varying from three to six weeks), with great pain during the periods; the discharge attended with clots and shreds. There is no enlargement of abdomen, but the abdomen is rather tender.

Last July had many of the same symptoms, and became very thin. A Medical Practitioner pronounced her to have an ulcer of the os uteri, and applied caustic every week until October. He then applied a liquid caustic of much greater strength, after which she was stated to have recovered.

Examination per Vaginam.—Os uteri hard and knobby; cervix very short; uterus enlarged, globular, and hard; vagina much cicatrized.

Acid. nitro-mur. c. liq. taraxaci ex infuso cinchonæ oblongi. F. ter die. Suppositoria plumbi diacet. c. extr. conii, omni nocte.

July 6.—Looks clearer. No pain of back. Feels stronger. Less leucorrhœa. Tongue still rough in the middle. Pulse stronger. Bowels confined. Suppositories produce no pain. Has been taking wine freely, at the advice of some friends. Catamenia appeared fourteen days ago with less pain and of a much more natural appearance; the discharge lasted eight days.

Omit. supposit. pro temp. Rep. mistura. Hooper's saccharized hydrate of magnesia, primo mane pro re nata.

November 11.—Her mother has called to say that she is residing at the sea-side, and that her health has greatly improved; but that she is walking and standing about too much.

March 23, 1854.—Has called on account of the severe pubic pain which she suffers during the first twenty-four hours of the catamenial period, and which leaves her much exhausted. The discharge is natural. The catamenia are apt to come on a week after the usual time, in which case she suffers more. Has flushings, much frontal headache, bad taste in the mouth, but the tongue is clean, and she says that the bowels are natural.

Examination per Vaginam.—The os is scarcely distinguishable, but neither it nor the cervix are so hard as they were before. The uterine sound passed with difficulty. The point of the dilator would not.

℞ Pil. hydr. extr. hyosc., āā gr. v. alt. nocte, per tres vel quatuor vices.

℞ Pulv. guaiaci, magnesiæ, āā gr. x. primo manc.

℞ Acid. nitro-mur. c. liq. taraxaci ex infuso aurantii co. bis terve die.

℞ Pil. saponis c. opio gr. v. Ft. supposit. To be introduced into the rectum during the pain of a catamenial period.

Having felt it necessary to inform her of the real state of things she wrote to me in two days afterwards the following statement:—"After the lunar caustic ceased to have any effect, there came a new description—a fierce liquid—and, by a blunder, instead of being kept to the ulcerated part, as it was intended, a most comfortable fiery stream ran into the womb. It brought on a glorious attack of inflammation, which very nearly put an end to my life."

July 15.—Is looking fairly well, but has lost colour and

flesh; little or no appetite. Tongue natural, bowels regular, pulse irritable, abdomen tender. When she lies on her back she has a dragging pain from the symphisis pubis; if she lies on her side there is a sensation of weight rolling over to that side, with pain down the thigh. Much irritability of bladder; urine pale and clear; no leucorrhœa. The catamenia, which appeared four weeks ago, were accompanied with much pain, and an unusual amount of exhaustion afterwards. Has been frequently sick during the last three months on rising. This sickness was much more severe than usual after the period, and followed by great tenderness of the abdomen.

Examination per Vaginam.—Os uteri in the same knobby indistinct condition, but the cervix feels a little longer. Uterus now is neither hard nor tender. The uterine sound passed easily 2½ inches; the dilator passed with difficulty only as far as half-an-inch, which I dilated slightly. It then passed to the whole extent. I dilated the canal of the cervix gently.

Rep. pil. hydr. c. ext. hyosc. and mist. cinchonæ., sodæ potassio-tart., primo mane.

July 23.—Catamenia appeared on the 18th; the discharge came easily for the first twelve hours, then she had pain for twenty-four hours. The discharge was copious; at first it was dark and brown, but gradually assumed a better colour; there were neither clots nor shreds in it, nor did she feel so exhausted as on the former occasion. Bowels regular. No leucorrhœa.

Rept. misturæ et sodæ pot. tart. Has applied four leeches to the anus since last report. Let her repeat them occasionally.

September 29.—Feels better. Has lost the sickness. The last catamenia were attended with less pain, though very dark; the last leeches relieved the pelvic pain; still uses the suppositories occasionally.

December 19.—Looking much better. Catamenia ought to have appeared a week ago. Slight leucorrhœa last week. Tongue and bowels more natural; but she is weak, and has boils on her feet and hands. The cold perspirations which she had before are less. She has had no sickness ever since I dilated the os uteri (July 15), and the periods have been much easier since, except the one immediately after the dilatation, when a large quantity came away. The leeches have been applied shortly before the periods, and she has continued the suppositories during the intervals.

℞ Ol. jecoris aselli, succi limonis, āā cochl. med. j., bis die, ex aqua.

February 14, 1855.—Has been suffering severely at every period since last report; the pain is *before* the discharge. She has lost strength and flesh.

Examination per vaginam.—The os uteri is knobby; but the uterus itself is not much enlarged now, and there is a fair amount of cervix; the sound passed with some difficulty. I divided the cervix, beginning at the os uteri internum, and gradually increasing the depth of the incision as I descended; so that the lower half of the wall of the cervix was completely divided. The incision was on the anterior portion of the cervix, the anterior lip of the os uteri being divided through its centre.

March 14.—In two days after the operation a small metallic plug was introduced into the canal, to prevent contraction beyond a certain amount during cicatrization. She had no unfavourable symptoms. The plug was removed about the twelfth day, and in a few days more she returned to the country. She now writes that her looks are much improved; the tongue becoming more natural every day; but the pulse is still feeble. She declares her "appetite ferocious," and that she has "not eaten such breakfasts for years;" and expresses, with deep feeling, how great the contrast is from her former suffering and depression to the health and brightness of spirits which she now enjoys.

July 17.—Had a catamenial period at the beginning of April. It passed over very naturally, except that it increased a pain of the right groin which she has felt more or less ever since the operation. She became pregnant, but aborted (June 18); her Medical man considered it to be a ten weeks' ovum. The right ovarian pain continues; but it is not increased by standing or walking, and is relieved by change of posture, except on the right side, or by sitting down on a hard seat.

Catamenia appeared on the 7th instant, and lasted five days; after which she bathed in the sea, and it returned for two days more. Since then has had leucorrhœa, occasionally tinged with blood. General health good.

Examination per Vaginam.—There is no pain in the region of the right ovary. The os is tender; sudden pressure on it, though slight, makes her start; gradual pressure, although increased to a greater degree, does not. The os uteri is turned very forwards, and the anterior portion of the cervix is short.

Examination cum Speculo.—Nothing wrong, except that there is much of that white albuminous discharge which indicates uterine irritation.

Let her apply four leeches to the anus at each half-way period. Rep. suppositoria.

December 21.—Looking delicate; considers herself at least eight weeks advanced in pregnancy. Much leucorrhœa at the (what would have been) catamenial period, and also at the intermediate times, but no coloured discharge. Pulse very weak; tongue clean but pale; bowels confined; urine loaded; severe morning sickness.

℞ Acidi hydrochlorici dil., acidi nitrici dil., āā ʒij., acidi hydrocyanici (Scheele's acid) guttas xx., syrupi aurantii ʒj., aquæ cinnamomi ʒiss. M. Ft. mist. sumat cochl. minimum j. ter die, ex aqua ante cibum.

℞ Tinct. opii ʒss., linimenti camphoræ comp. ʒiiss. M. Ft. linimentum epigastrio applicandum.

February 27th, 1856.—Writes in excellent health and spirits. Pregnancy is advancing most favourably.

August 8.—Was delivered this morning, after a short and favourable labour, of a fine boy.

The happy termination of this severe case must be my excuse for the length of the report. Young, beautiful, gifted with talents of the highest order, and possessing acquirements far beyond the average of well-educated women, she had suddenly become, in the very bloom of her youth, a helpless and suffering invalid, with an amount of uterine injury which seemed to preclude all hope of relief, and to excite no slight apprehension that it must end in organic disease.

The state of her health was so lamentably broken, that this was evidently the point towards which my chief treatment must be first directed. It was impossible to ascertain correctly what was the real extent of injury which the uterus had sustained; the parts were hard, and, at least in a highly irritable, if not inflammatory, state. I therefore felt that, besides trying to restore the general health, the local treatment could be only such as would allay irritative and inflammatory action, for which purpose the suppositories of diacetate of lead and extr. conii answered well.

The account of that liquid caustic may, indeed, well excuse the bitter tone in which she has given it. What symptoms could possibly justify such treatment? As far as I have been able to ascertain from her, the symptoms for which she underwent all this suffering and injury were much of the same nature as I have pointed out in the two previous cases. She had lost strength and flesh; she had leucorrhœa, and the usual concomitant varieties of discomfort arising from relaxation and defective tone of the pelvic contents. Would a Practitioner dare to go on applying lunar caustic every week for a quarter of a year to an external part of the body, and then wind up such treatment by the use of a liquid which burned like strong nitric acid? And supposing there really had been "an ulcer of the os uteri" (and it was no fault of his that there was not), would not the commonest principles of treatment have told him that, when an ulcer had resisted local applications for so many months, it was high time to ascertain if there was not some cause connected with the state of the general health upon which its continuance essentially depended?

For thirteen months I continued more or less the same treatment with which I commenced, abstaining even from making any further examination until March, when I ascertained that, although the os, cervix, and lower portion of the uterus were softer, the os was nearly obliterated by cicatrization, the canal of the cervix scarcely admitting the sound. The shortness of the cervix was not so much owing to the use of caustic as to the enlarged state of the uterus; for, as the uterus became softer and smaller, so did the length of the cervix increase. In July, the time appeared to have arrived when the general health had received as much improvement as it was capable of; and that the derangements which still continued might be fairly attributed to the sympathetic irritation arising from the injury which had been inflicted upon the uterus, and from the obstructed dysmenorrhœa which had resulted: in other words, the general health was in good order, but the

system was still suffering from the effects of the uterine injury. The bladder was irritable, but the urine healthy. The stomach was irritable, with loss of appetite, but the tongue was clean, and the bowels regular. The os uteri and cervix had become softer, and, therefore, in a fitter condition to undergo slight dilatation by gentle stretching. This was effected without difficulty. In three days afterwards, a considerable quantity of dark brown fluid came away, like retained menses, followed by a discharge of a better colour, and with great relief. From that moment the sickness, which had troubled her for three or four months, ceased entirely, the catamenial periods returned with less pain, and she felt generally better; but in the course of six months, the good effects of the dilatation had gone off, she again suffered severe dysmenorrhœa, with the characteristic symptom of the pain preceding the discharge; but the uterus had, during this time, considerably diminished, partly in consequence of the free evacuation of its contents, and partly from being in a less irritable condition than before. I therefore divided the anterior wall of the cervix, as described, with the best results.

OPHTHALMOSCOPIC SKETCHES.

By Dr. P. FRANK,
Army Medical Staff.

I PROPOSE to illustrate in the following sketches a few of the results obtained by the use of the ophthalmoscope, from the introduction of which we are already justified in dating a new era in ophthalmic science. The title of this communication will show that I disclaim all pretensions to anything approaching to an exhaustive treatment of this important subject; as the long series of facts and deductions relating to it, ranging as they do over the whole sphere of ophthalmic science, would not admit of compression into the narrow limits of an article in the *Medical Times and Gazette*. I offer merely some more or less connected extracts from the treatises of Gräfe, Arlt, Liebreich, and others; and, having myself enjoyed frequent opportunities for ophthalmoscopic investigations, I trust to be able to give, at least, a correct interpretation of the results obtained by the great Continental observers. I abstain from entering into any introductory remarks on the instrument itself, or the theory of its application; nor do I wish to join in the controversy on the advantages of the different forms it has assumed; suffice it to say, that the large and complicated instrument of Donders and Liebreich are necessary for those only who desire to institute micrometrical researches, whereas, for all ordinary observations, the small perforated concave mirror first generally introduced by Anagnostakis, of Athens, or the instrument of Coccius, particularly in its improved form, as well as the elegant and comprehensive apparatus of Stellwag and Jäger are far preferable.

Morbid changes in the cornea are generally easy of detection without physical aid; or an ordinary lens may suffice for their more exact appreciation. In disease of the iris, however, the concentration of artificial light will often be of value, and it is for the examination of this part, as well as for that of the lens and the anterior portion of the vitreous humour, that the method introduced by Liebreich, as "lateral illumination," can be particularly recommended. For this purpose, we can either employ an ordinary ophthalmoscope, or, what is far more advantageous, the light of a lamp, placed at the side of the patient, can be concentrated by means of a biconvex lens of an inch and a-half focus, and thrown obliquely into the eye; the focus can be directed upon any spot, and a strong lens, or even a microscope up to ninety powers (Liebreich) can be used by the observer for the most accurate examination of the illuminated part. It is well to place a shade between the lamp and the eye of the observer, to obviate all disturbing influences. The most minute alterations of the cornea, of the free margin and parenchymatous structure of the iris can thus be detected and studied with the greatest case.

Atrophy of the iris can be detected by directing the cone of light through the pupil behind that organ; any undue amount of transparency will thus be evident, and the state of the tissue admit of the most minute examination. In a case occurring in a man 72 years of age, where, in consequence of a blow, without any external injury, the inferior segment of the iris had become detached, and the transversely oval pupil dislocated towards the upper margin of the cornea, Liebreich was able to see (by this method of illumination) the ciliary processes with great exactitude, and to confirm in the living eye the statement of Helmholtz (important for the new theory of accommodation), that the points of the ciliary processes attain nearly the margin of the lens, and that prolongations from them extend, for a short distance, over its anterior surface. Dislocations of the ciliary body have also been observed.

It is obvious, that, by this method as well as by the ordinary mode of ophthalmoscopic examination, the slightest abnormal opacity in the lens; its extent, seat and nature, as well as the size, colour, and other relations of the nucleus will admit of exact appreciation; wounds and cicatrices of its capsule, small foreign bodies imbedded in its substance, its position in cases of dislocation, can also be accurately discovered. This facility of diagnosis, combined with the more accurate knowledge which recent investigations have insured for various forms of lenticular disease, cannot fail to fix with more certainty and precision the method of operation, applicable to special cases; the splendid essays of Gräfe on cataract; the first, where all modern appliances for diagnosis have been brought to bear upon the subject will prove this assertion, to all who might be unwilling to accept its truth. Every diagnostic aid is thus enhanced in value and dignity, and from a mere scientific curiosity, becomes an important guide in the practice of art. Reserving further remarks on cataract for a special communication, I hasten to sketch the changes revealed by the ophthalmoscope in the vitreous humour.

To commence with a curiosity, H. Müller has of late directed attention to the remains of the fœtal hyaloid artery, which are easy of discovery in the eye of the ox, and are seen by the opthalmoscope as a white cone projecting from the entrance of the optic nerve into the vitreous humour. As a similar formation could be met with in the human eye, this short allusion to the subject may be excused.

The diagnosis of hæmorrhage into the vitreous humour will now occupy our particular attention. The ophthalmoscope renders it a very easy task; should the quantity of blood extravasated be considerable, we shall be unable to illuminate the background of the eye; in other cases the retina and choroid will be visible to a smaller or greater extent, beyond the limits of the dusky blood, or partially semi-transparent coagula. The process of dissolution and absorption of the effused blood can be followed in its different stages: small clots or shreds of fibrin, pigmented or colourless, are visible, either more or less stationary, or in cases of synchisis rising and falling according to the movements of the eye. Gräfe states, that, whenever intra-ocular hæmorrhage was the cause of opacity of the vitreous humour, after absorption had taken place to a sufficient extent, to permit the examination, the choroid could always be proved to have been the source of the extravasation; as the ophthalmoscope never failed to show signs of great anomalies in its circulation, or residues of ancient ecchymosis in the intervascular spaces, in some cases, the perforation of the retina could be distinctly recognised. If the extravasation is found to be limited to the anterior parts of the vitreous humour, the blood will have been derived from the ciliary processes, as Arlt once proved it to be the case by dissection. If complicated with retinoid ecchymosis, we may infer that the central ophthalmic artery or vein has been the source of the hæmorrhage, which Gräfe believes to be a very rare occurrence.

Blows and indirect concussions of the eye are known to be frequent causes; in the absence of these influences, however, active or mechanical hyperæmia of the retina or choroid, particularly if associated with diminution of the normal tension of the bulb; and posterior sclerotico-choroiditis (a disease, where in consequence of chronic inflammation of choroid and sclerotica, around the entrance of the optic nerve, atrophy of the choroid and dilatation of the sclerotica, results) has been found to show a fatal predisposition to intra-ocular hæmorrhage.

Accommodation of the eye for near objects, if long continued, is also considered by Gräfe and Arlt to be a frequent cause, on account of the venous stagnation, produced by muscular pressure, or of the active hyperæmia supervening on its sudden cessation.

Gräfe states that he has frequently treated patients, mostly between 20 and 40 years of age, who were perfectly deprived of vision by intra-ocular hæmorrhage occurring nearly periodically in intervals of a few months. He considers the danger of these attacks to depend not only on the opacities remaining in the vitreous humour, where flakes and shreds, etc., can be

recognised, but also in the concomitant perforations of the retina, and most particularly upon the possibility of extensive subretinoid extravasation. "It is, therefore, frequent to find one eye blinded by detachment of the retina with its consequences (cataracta mollis, acreta, with or without atrophy of the eye-ball,) whereas on the other eye opacities of the vitreous humor are detected, as residues of periodically recurring hæmorrhage."

With regard to the opacities occurring in synchysis, or liquefaction of the vitreous humour, the following remarks of Gräfe will be found exhaustive. The most difficult of detection (with the ophthalmoscope) are the diffuse or punctated opacities, as they merely throw a thin veil over the picture of the retina, obscuring the sharp outline of the optic papilla and the retinoid vessels. By more careful investigation, however, this veil will be found composed of a vast number of molecules, a discovery which is very difficult when they are situated, not in the same depth, but in different strata of the vitreous humour; in the first case they constitute a finely sprinkled, semi-transparent membrane, which, alternately contracting and distending itself by dislocation of the component parts, moves like a net-work of delicate tissue before the back-ground of the eye; or, if they are situated in different depths, the whole represents a fine dust or rain, which, during movements of the eye, is often conglomerated into dense masses, and, on their cessation, sinks downwards either in an even mass, or in separate showers. The patients complain of a mist shrouding the external objects; or have the sensation of currents in the air, as caused by swarms of insects, etc.

These diffuse semi-transparent opacities disturb vision far more than larger but well-defined opacities, because in the latter case the intervening parts of the vitreous humor are perfectly transparent. The same obtains for diffuse, semi-opaque opacities of lens and cornea, where the Stenopæan spectacles of Donders have been found so valuable by preventing the diffusion of light on the retina.

As to the larger and denser opacities, they occur either as filaments or flakes; attached to the latter Gräfe has observed crystals of cholesterine, which with the ophthalmoscope or the method of lateral illumination, present a most brilliant appearance.

Opacities in the vitreous humour are often caused by exudation of lymph, and Arlt and Gräfe describe cases where it was recognised by the ophthalmoscope in the anterior parts, proceeding no doubt from the ciliary processes.

In the last number of his excellent journal, Gräfe directs attention to opacities occurring in the anterior part of the vitreous humour during iritis, complicated with inflammation of the corpus ciliare, cases in which hypopyon accompanied the process. Anatomy encourages the belief, that the hypopyon in these cases is due to an exudation from the vessels of the tensor choroideæ. It becomes absorbed, but has great tendency to relapse, and opacities are discovered in the vitreous humour extending from the choroid, either as floating membranes or in form of a dense reticulated or areolar structure of lymph. "In a second and milder form, the disease commences as slight iritis, which is, however, very obstinate, and shows great tendency to relapses. The opacities in the vitreous humor were generally very delicate filaments or membranes, and Gräfe has repeatedly seen them disappear within a period of two to six months. In several cases cataract of the posterior pole of the lens, a form so frequently consequent upon disease of the vitreous humor, developed itself, and remained as an indelible residue of the affection. Cyclitis is here no doubt the main cause, and the disproportion between the extent of subconjunctival injection and the iritis, leads to suspect its presence from the commencement. In two cases structural changes were proved to exist in the corpus ciliare after the process had terminated."—(Gräfe's Archiv. Vol. II. 2nd part.)

In concluding, for the present, our ophthalmoscopical survey of the vitreous humour, I cannot refrain from adding a summary of the interesting cases of cysticercus, lately discovered by Gräfe and Liebreich in this part of the eye, and shall include in my sketch those observed in and under the retina, to avoid the repetitions which a separate description would involve. Within the last three years Gräfe has discovered seven cases of cysticercus in deep parts of the eye, with the ophthalmoscope, two in the vitreous humour (one of these described and magnificently represented by Liebreich), two under, and three on the retina; all, however, projecting into the vitreous humour. The patients were from 10 to 53 years of age. The two cases developed in the vitreous humour occurred in males, suffering at the same time from tænia; four of the retinoid cases occurred in females, one of whom only was affected with tænia; and as cerebral symptoms, with paralysis of one arm, co-existed, could be supposed to have cysticerci in the substance of the brain. The parasites residing in the vitreous humour were enclosed in a membranous sac, and it seems that they are supported for a long period with comparative immunity of the other structures of the eye, whereas, if developed on or under the retina, they do not fail to excite inflammatory action, producing detachment of the retina by choroidal exudation, development of membranous opacities in the vitreous humour, etc., with consecutive atrophy of the eye-ball.

We add the following description of Gräfe, illustrating the appearances presented by cysticercus in the vitreous humour:—

H. M., from Posen, a boy, 10 years old, complaining of amblyopia of the right eye. Slight green discoloration of the iris, but no parenchymatous effusion. Pupil slightly dilated and sluggish. On ophthalmoscopic investigation a cysticercus is discovered in the vitreous humour enclosed in a membranous sac, which extends from a point just behind the posterior pole of the lens, and diverges, fan-like, in a system of radiated offsets, towards its posterior surface. Thence the sac extends nearly directly backwards, and is attached to the papilla of the optic nerve, which, with the exception of two narrow segments, is hidden from view. The fundus of the cysticercus itself seems to be situated in the middle of the vitreous humour, where it is distinguished by a sharp contour from the continuation of the sac. Just above the insertion of the sac, on the papilla of the optic nerve, some spots of yellow retinoid, and sub-retinoid exudation were visible; the retina and choroid otherwise normal. The undulatory motions of the parasite were distinctly visible. After two months, no change had occurred; in the similar case, described by Liebreich, no change was visible after nine months. This, as was before hinted, contrasts forcibly with the degeneration caused by development of the parasite on the retina, of which case we abridge one of the remarkable descriptions of Gräfe:—A servant-maid, 25 years old, had remarked the development of amaurosis of the right eye, since a period of three months. Although the power of vision was reduced to quantitative perception of light, ordinary examination detected only sluggishness of the pupil.

The ophthalmoscope showed extensive changes in the central part of the retina, consisting in light-green discoloration, and granular degeneration, rendering the membrane quite opaque, and hiding the vessels from view. Separated by a portion of normal retina, a round, bluish-green cyst, showing distinct undulatory motion, was seen to project into the vitreous humour; in the centre of the vesicle was a white, strongly-reflecting part, representing, no doubt, the head of the animal. The fundus of the cysticercus was fixed on the retina, the vessels of which were seen to pass under it.

In a few weeks, opaque membranes were developed in the vitreous humour, inducing perfect blindness, and preventing further examination.

In another case the retraction of the head of the animal and its four mouths could be plainly distinguished.

The back-ground of the eye, the retina, and choroid, constitute the principal and most interesting field for ophthalmoscopic investigation. Amaurosis is no longer, as the great German Surgeon, Philip Walther, defined it, "a disease in which both patient and Physician are blind." In the majority of cases, anatomical changes can be discovered, sufficient to account for functional derangement, and even in those cases where the disorder is of deeper origin, affecting either the brain, or the sheath and substance of the optic nerve, the consecutive atrophy, or fibrous degeneration of the optic papilla, of which cases are already recorded, play the part of peripherical representatives of the central affection.

Before attempting to form an exact estimate of the pathological changes revealed by the ophthalmoscope in the retina and choroid, the normal picture presented by the background of the eye demands careful study; and the part borne by the different membranes in the production of this picture must be the subject of particular consideration. The retina itself being nearly transparent, the subdued red colour presented by the background of the eye must be due to the capil-

lary layer of the choroid, the real colour of which is modified by interposition of the pigmentary stratum. Alterations of the retinoid tissue will, of course, change and obscure the normal aspect of the choroid; exudations between retina and choroid or into the substance of the latter will have a similar effect; morbid changes of the pigmentary stratum, so frequently accompanying choroideal disease, will be of particular importance; its maceration or atrophy will disclose with wonderful clearness the chorio-capillary membrane and the vorticose vessels; and if these strata, as it has been proved to be the case, become similarly atrophied, the internal surface of the sclerotica will reflect a bright white light. We add to these considerations a series of remarks extracted from a very remarkable essay of Liebreich on the "coloration of the background of the eye, in order to direct attention to the variations occurring within normal limits.

"It must be borne in mind that we see the parts constituting the background of the eye partly by incident light, and partly by that reflected from the subjacent tissue; for the light falling on the most superficial layer will be partly allowed to traverse it, but partly be reflected; this portion allowed to pass through will be partly reflected from the next stratum, partly proceed to the deeper layers, and so on. We are, therefore, allowed to infer, that in ophthalmoscopic investigations the illumination of the retina and choroid is partly produced by light reflected through these membranes from the sclerotica." The amount of white light reflected will depend particularly on the development of the pigmentary stratum of the choroid; and in the eyes of Albinos and of white rabbits Liebreich was even able to follow blood-vessels from the choroid into the substance of the sclerotica membrane, and to study the course and distribution of the choroideal vessels in the living eye as well as by means of the best injected preparations. This will always be more or less possible in fair persons with blue iris.

The normal retina can be regarded as nearly transparent; and only in eyes which are strongly pigmented it appears under the ophthalmoscope as a bluish haze, or is recognized by the radiating fibres of the optic nerve. Its vessels are, of course, plainly visible; veins and arteries can be distinguished; both are the seat of interesting pulsatory phenomena, caused by abnormal conditions of pressure in the eyeballs. The macula lutea can be recognized, according to Gräfe, Heyman, and others, by a strong bright reflection proceeding either from the margins or the concavity of the fovea centralis; the reflection is either of circular, crescentic, or stellate form. In speaking of the papilla of the optic nerve, Liebreich states as follows:—"The papilla of the optic nerve presents, under ordinary circumstances, the greatest variations with respect to form and sharpness of outline, prominence, and colour. It is rarely quite circular—often vertically, but never transversely oval in healthy eyes. In colour it is either more or less reddish, yellowish, or white; sometimes of a bluish, grey and green tint, according to the age of the individual, the distribution of the blood-vessels, or according to the contrast produced by the varying colour of the other parts of the background of the eye."

The appearances revealed by the ophthalmoscope in diseases of the retina and choroid have given a remarkable stimulus to the investigation of the morbid anatomy of these delicate parts; the interpretation of what we see thus become daily more correct; but great circumspection, much practice, and careful consideration of optical laws, is still required to obviate erroneous inferences. Great difficulty will always be experienced in the appreciation of depression and prominence, for instance, of the optic papilla, etc., which Weber has shown to depend in part on the alterations produced in the light and shade of inverted images, which will be the case if a convex lens is used with the perforated mirror.

We will now attempt to give a condensed sketch of those morbid changes of the retina and choroid which the ophthalmoscope permits us to recognize with certainty, abstaining from all controversial subjects, and only touching upon the pathology of the disease, where we believe ourselves able to give important and novel information. A hyperæmic state of the retina is not very difficult to appreciate, if the picture presented by the vessels of the normal eye be well borne in mind: "it is most easily recognized," as Arlt very correctly maintains, "by an abnormal development, particularly of very delicate vessels on the papilla of the optic nerve, which sometimes is covered with a dense injected network of capillaries, presenting, at the same time, small spots of ecchymosis. Extravasation on or into the substance of the retina has been found to be a very frequent occurrence; we have already treated of it as co-existent with hæmorrhage into the vitreous humour. It occurs after traumatic injury of the eye-ball; was once found by Türk to be caused by pressure upon the ophthalmic vein by a cerebral tumour; in a case of purpura, Arlt once saw both retinæ covered with punctated ecchymosis, causing a considerable degree of amblyopia; they disappeared in a few weeks, under the effects of tonic treatment.

Extravasation frequently accompanies inflammatory processes in the retina, and is discovered by the ophthalmoscope, together with the products of the inflammation. The following case, observed in Gräfe's clinic, and published in his journal by Dr. Liebreich, together with a highly artistic delineation, will serve to illustrate "retinoid apoplexy" in all its bearings better than any general remarks. It will prove, at the same time, how minutely pathological processes can be observed and watched by means of the ophthalmoscope.

A woman, 43 years of age, who had been subject to congestive headache for some years, remarked, after an attack of vertigo, supervening on a violent emotion, that her left eye was blind, and immediately presented herself in Dr. Gräfe's clinic. On external examination, the eye appeared perfectly normal; the pupil showed the same amount of dilatation as that of the right eye, and its reaction was unchanged. With the exception of the lowest part of the field of vision, the eye was blind. On examination with the ophthalmoscope, the lens and vitreous humour appeared perfectly clear and transparent; but the back-ground of the eye was extensively discoloured. The papilla of the optic nerve was deprived of its lustre, its bright colour, and sharpness of outline, so that its situation could only be discovered by the origin of the blood-vessels. The central ophthalmic artery was exceedingly attenuated, seemingly empty, and, together with its branches, was only to be recognized here and there with difficulty. The veins, however, were distinctly visible, and had undergone considerable alterations; their course was singularly tortuous, and their diameter varied considerably, dilated portions being seen to alternate in a certain regularity with exceedingly pale, contracted, and nearly invisible parts. Some of these fusiform varicosities seemed as if it were ruptured, and covered with large coagula. A large number of irregular, roundish, dark-red spots accompanied all the vessels in their course towards the ora serrata, as far as the eye could follow them, and were also distributed in groups over the other parts. The region just above the macula lutea seemed nearly free; but below a dense series of ecchymoses was visible. On the following day, however, the field of vision was perfectly obscured: and, in accordance with this deterioration, a large dark red spot was observed just above the macula lutea, surrounding its upper margin with a curved figure.

Consequent upon an energetic antiphlogistic and derivatory treatment, the power of vision and the anatomical state of the parts rapidly began to alter. The large dark-red spots began to present fissures on their surface; and particularly in the proximity of the bloodvessels light yellow longitudinal striæ were evident.

The papilla of the optic nerve has the appearance of a flame, being covered with alternating radii of red and bright yellow colour, the extravasation seeming to have taken place between the fibres of the nerve. After six weeks the normal outlines of the papilla were restored, together with its usual colour and lustre. The arteries, although thinner than is normally the case, were again plainly visible. A few blood-spots remained in the equatorial part of the retina. Exudations were not seen in this case, nor were the small vascular tufts discovered, which Gräfe has described as a usual formation in apoplexy of the retina. Power of vision became gradually so far restored that the patient was enabled to see large objects distinctly, except in certain directions, when suddenly, after a severe headache, deterioration of sight again supervened; as the cause of which a fresh extravasation was discovered, first above and internally to the papilla of the optic nerve, in the form of a large triangular spot. The process of resorption again proceeded favourably, but before it was accomplished extensive hæmorrhage into the vitreous humour almost entirely deprived the patient of vision. This extravasation, however, is also gradually becoming absorbed.

Exudation into the substance or on the surface of the retina

can either be recognised as a diffused cloudy opacity of the normally transparent membrane; or as more or less sharply limited grey-white, reddish or yellow plâques; in some cases we have seen the retina covered with small seed-like granulations of lymph. The neighbourhood of the optic papilla is frequently the seat of these deposits; its outlines are thus more or less obscured, and are seen to merge diffusely into the surrounding exudation. The distinction of retinoid from subretinoid exudation, proceeding from the choroid, is sometimes difficult; the retinoid vessels are, however, an important guide in doubtful cases.

Care must also be taken not to confound them with the white luminous spots, occurring either diffused over the back ground of the eye, or, (as in sclerotico-choroid, they are posterior,) as a falsiform figure surrounding the margin of the optic papilla, resulting from atrophy of the choroid, which appearance enables the internal surface of the sclerotica, or exudation on that surface to be observed. We remember very well, when we first saw these phenomena, particularly the magnificent falsiform figure around the papilla, to have continually ascribed them to retinoid exudations, an error which some skill in the use of the instrument and a knowledge of Gräfe's and Arlt's dissections must now render impossible.

It is several years ago since Landbourz first directed attention to the occurrence of amblyopia and amaurosis in cases of morbus Brightii. Türk of Vienna was the first to describe a retina, taken from an amblyopic patient with granular kidneys. Both retinæ were infiltrated with an exudation, containing numerous granulated and nucleated cells; this degeneration extended in a diameter of four lines around the optic papilla. In 1853-54, when an Assistant-Surgeon in the Danzig Hospital, I had the opportunity of observing with Dr. Wagner, two cases of amaurosis, supervening during the course of Bright's disease; in one ophthalmoscopic investigation was practicable before death.

In both of these cases the retina offered a similar degeneration. They were covered, particularly around the entrance of the optic nerve, with small extravasations of blood, and white yellow slightly prominent spots of fibrinous exudation, undergoing a fatty metamorphosis. No abnormal vascularity was apparent. There was no serum, between retina and choroid, which might, *à priori*, be expected in this form of constitutional disease.

Since that period several cases of amaurosis, complicating morbus Brightii, have been described, three cases occurring during a space of five years in the Vienna Hospital by Blodig, and three very interesting cases by Heyman of Dresden. The latter appear to deserve general consideration.

In one the ophthalmoscope discovered merely a very considerable enlargement and abnormal prominence of the papilla of the optic nerve, which Heyman ascribes to serous infiltration; the patient had become blind in three days. He died shortly afterwards; but a post-mortem could not be obtained. In the second case the vitreous humour was obscured with membranous opacities, which prevented an accurate examination of the retina. Also no post-mortem. The third case is the most perfect and important one. The patient, 56 years of age, of very intemperate habits, and suffering from chronic morbus Brightii, attended with dropsy of cellular tissue and cavities. It was observed, that after a decrease of the dropsical effusions maniacal attacks were apt to supervene, after each of which amblyopia came on, and persisted for some time. After the first attack external objects appeared shrouded in a thin veil, but gradually the field of vision became perfectly obscured. A short time before his death (the only opportunity Heyman had of examining him), the pupils being in a medium state of contraction, and showing moderately good reaction, the ophthalmoscope discovered sharply-defined irregular yellow-white patches in the retina. The condition of the patient did not, however, permit any very accurate examination.

The post-mortem showed, besides granular kidneys, dilatation of the right ventricle, etc., the following changes in the brain and eye.

The macula lutea and papilla of the optic nerve appears normal. The retinæ, in general grey-white and semi-transparent, present one to two lines from the papilla of the optic nerve a ring of about twenty white-yellow, sharply-defined irregular spots; the largest traversed (as the ophthalmoscope had shown during life) by a blood-vessel was one millimetre in its longest diameter. Microscopic investigation proved that these spots were produced by fatty degeneration of the ganglionic stratum of the retina. We refer to the original essay of Heyman for a more detailed description.

The baccilli were normal, and the retina could be easily separated from the choroid.

Between the fibres of the optic nerve numerous amylaceous bodies were discovered; these were also found in the grey substance of the corpora striata, together with incipient fatty degeneration; also in the cortical substance of the hemispheres. A similar case has been described by Coccius.

Heyman once found, in a man of very intemperate habits, who had great excess of adipose tissue, with fatty enlargement of the liver, and suffered at the same time from amaurosis, both retinæ of a yellow-white colour, dense, opaque, and the blood-vessels of very small calibre; the situation of the papilla of the optic nerve could only be distinguished by the origin of the vessels. He believes this to be a case of total fatty degeneration of the retinæ.

In a case observed by Gräfe, where a woman, suffering from Bright's disease during puerperium, became amblyopic, large white plâques of exudation were seen on the retina. These were, however, perfectly absorbed during the subsidence of the renal disease; the first time that Gräfe observed this fortunate termination under similar circumstances.

I have just received a communication from my friend Dr. Wagner, the renowned Danzig surgeon, stating that in the last two years he has observed four additional cases of amaurosis with morbus Brightii. We shall communicate the results of his examination, which is quite perfect, as soon as we have received his essay, which will, no doubt, contain exhaustive statements.

It has already been proved by post-mortem examinations, that a very white glistening aspect of the papilla of the optic nerve can be regarded as a sign of fibrous degeneration of the optic nerve. We give the following extract from Gräfe, illustrating this connexion:—In a man who had been blind for some years, but without showing any signs of cerebral disease, with exception of mental decline, the ophthalmoscope showed merely a tendinous white papilla, and very delicate central vessels. Death was caused by pulmonary consumption. The post-mortem showed structural changes of the thalami and corpora striata. The optic nerves were atrophic, dark-grey, and gelatinous, till they reached the chiasma, but from there they degenerated into dense white fibrous cords; the papillæ also consisting of tendinous tissue. Only here and there a few nerve-fibres were detectable. The retina could not be satisfactorily examined on account of the advanced state of decomposition.—Gräfe, Archiv. II., p. 285.

Atrophy of the papilla has been frequently observed under similar circumstances; the whole retina is also undoubtedly involved, and the bloodvessels are diminished in size, and frequently quite obliterated, appearing either as pale or darkly pigmented slender threads.

It is one of Gräfe's innumerable merits to have directed particular attention to detachment of the retina from the choroid by extravasation or exudation proceeding from that membrane. We have already casually alluded to it in speaking of hæmorrhage into the vitreous humour.

The detached portion of the retina, with very few exceptions, its inferior segment, is seen with the ophthalmoscope to project as an undulating sac, distended with blood or fluid exudation into the vitreous humour. It will either be dark-red, or it will appear "bluish-white, with uneven furrowed surface, fluctuating to and fro with every motion of the eye; here and there a delicate rusty-brown, more or less interrupted bloodvessel will be visible, and the whole often reflects the light like glaciers in the evening-time."—(Arlt.)

With the exception of one case where the inferior half of the retina, detached, during an attack of puerperal nephritis, by fluid exudation, became (after absorption of the effusion) in some degree capable of qualitative and quantitative perceptions of light Gräfe has never seen the functional powers of the parts restored; although among several hundred cases he has frequently seen the detached portion, of course more or less changed and discoloured, again occupying its normal position.

As a rule, that part of the field of vision, corresponding to the extent of retinal detachment, becomes and remains permanently obscured. Gräfe adds, however, that the limitation of the field of vision is often more extensive than the result of ophthalmic investigation would lead us to expect; this he ascribes

to minute structural changes in the borders of the detached part, as well as to the shadow periodically cast over the adjacent portions by the overhanging floating membrane. The inferior segment of the retina is generally the part detached, the line of limitation being directed from above and outwards, downwards and inwards. In some few cases, however, particularly of traumatic origin, observed by Gräfe, the line was vertical, the external half of the retina, for instance, being involved.

Gräfe, who has already frequently observed cholesterine in the lens on pupillar exudations, suspended in the anterior chamber, adhering to opacities in the vitreous humor or glistening on the surface of the detached retina, has latterly observed it also with the ophthalmoscope in an exudation separating the retina from the choroid. The case being also interesting as one of total retinal detachment, appears worthy of a detailed communication.

"In a delicate girl, 10 years of age, blind since an indefinite period with the right eye, the external appearance of the eyeball presented no abnormity. The pupil, however, showed no re-action when light was thrown into the eye, but moved on rotation of the eyeball, and sympathetically with the pupil of the left eye. At a certain distance, and under favourable illumination, particularly if the pupil was dilated by closing the left eye, the white reflex from the background, so characteristic of retinoid detachment, was apparent. After artificial mydriasis the diagnosis could not only be made without the ophthalmoscope, but even the arborescent retinal vessels could be distinguished.

"The ophthalmoscope showed the lens and vitreous humour to be quite transparent, and a nearly total detachment of the retina, presenting the usual funnel, converging towards the optic papilla, which was still plainly visible. The walls of the funnel were formed by salient elevations of retina, separated by furrows and projecting in different heights into the vitreous humor. On the first look Gräfe was struck by a number of white, glistening, club-shaped, cylindrical bodies, the appearance of which justified the conclusion that they were conglomerations of cholesterine crystals, which were not, as in similar cases, adherent to the anterior surface of the detached retina; but partly situated on its posterior surface, and partly floating about in the fluid effused between retina and choroide."

The retina can of course also be detached by exudation of plastic lymph, by the production of tubercular disease by cancerous growths; and granulated prominences of its surface have latterly also been found to be caused by colloid degeneration of the pigmentary cells of the choroidea, a form of disease discovered and splendidly analyzed by Donders. The ophthalmoscopical analysis of choroideal disease, to which all these forms and of course also the detachment of the retina by hæmorrhage and fluid exudation, belong, will form the subject of our next communication.

(To be continued.)

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

VESICO-VAGINAL FISTULA—OPERATION—COMPLETE CLOSURE.

(Under the care of Mr. LUKE.)

THE following narrative is from notes taken by Mr. Ruttledge, Mr. Luke's dresser:—

History before admission.—The patient, an Irishwoman, of low stature, residing at Barking, in Essex, was delivered, by instrumental means, of a dead male child, of the ordinary size, June 2, 1855, having been in labour for a period of six days. She states, that nine days after delivery she first suffered from incontinence of urine, being unable to retain any water in the bladder. No treatment had been adopted prior to her admission into the hospital.

Condition of patient when admitted and detail of symptoms.—The patient did not appear to suffer much in her general health, and only complained of the inconvenience attending the fistula. In making an examination a catheter was passed per urethram, and the finger introduced into the vagina, when the catheter could be felt, and its extremity could be passed into the vagina. Upon introducing a bivalve speculum, there was found in the anterior wall of the vagina a transverse rent, nearly an inch in length, communicating with the urethra and bladder, about one inch from the meatus urinarius; the pelvis was small, and the patient was unable to retain any urine in the bladder.

Treatment adopted.—The patient was ordered to remain in bed, and was placed on full diet. An attempt was made to procure relief by mechanical means, and on November 7 a piece of dry sponge, enclosed in a piece of bladder, forming a cylindrical pessary, about $2\frac{1}{4}$ inches long and $\frac{3}{4}$ of an inch in diameter was introduced into the vagina, and, as moisture was absorbed through the membrane, the sponge expanded and closed the fistula. By these means the patient was enabled to retain her urine for about twenty minutes; this was changed daily. Considerable difficulty was experienced in retaining the pessary within the vagina; for, if it was too large it caused much pain, and if small it was ejected by the muscular fibres of the vagina.

Nov. 16.—Some irritation arose in the vagina from the presence of the pessary, which was discontinued. An opiate lotion was injected into the vagina, which relieved the pain.

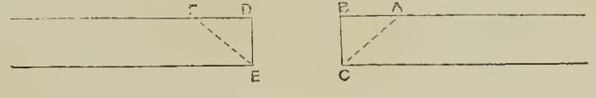
25th.—The pessary was resumed and continued for a few days, but as some irritation was again set up in the mucous membrane it was discontinued.

December 4.—The patient was allowed to sit up in the ward.

17th.—Suffering from a slight cough; some lohoch was ordered.

Jan. 10, 1856.—An India rubber bottle, ovoid in shape, about three inches in length, connected at one extremity with a tube with a stop-cock, was introduced into the vagina and inflated, but this caused considerable pain, as it was too large. As much difficulty was experienced in getting one of a suitable size, the use of it was abandoned.

February 1.—The patient having been placed under the influence of chloroform, Mr. Luke proceeded to perform the operation of paring the edges of the wound, and bringing them together with sutures. She was placed in the position usually employed in lithotomy, a full-sized sound was introduced through the urethra into the bladder; the walls of the vagina were separated with a bivalve speculum. The edges of the



wound were so pared as not to enlarge the opening. Thus, let the figure represent a longitudinal section of the vaginal wall, A F being the vaginal surface, and C E the urethral. It is clear that the triangles A B C, F D E may be removed without increasing the distance between C and E, and two raw surfaces, A C and E F, would be obtained for the purposes of union. To facilitate the introduction of the sutures two needles were placed in each piece of silk. Two sutures were employed, being passed from before backwards, so as to unite the wound horizontally. A piece of sponge was inserted into the vagina, and a catheter tied in the bladder; the patient was removed to bed, and directed to occupy the prone position. A piece of sponge was placed under the orifice of the catheter, and it was ordered to be changed every half-hour. The thighs were protected with oilcloth. Tinct. opii ♏ xxx. h. s. s. was ordered. She was placed on milk and beef tea.

2nd.—The patient passed an uncomfortable night, the position being very disagreeable; some febrile symptoms were present, the tongue was coated, pulse quick. Mist. salinæ ℥i. omni 4tâ horâ.

3rd.—The febrile symptoms still continue, combined with sickness. Mist. salinæ effervcs. ℥i. omni 4tâ horâ. Rep. tinct. opii ♏ xxx. h. s. s.

4th.—The patient is much better; the febrile symptoms are subsiding. Ordered two eggs. Rep. tinct. opii h. s. s.

5th.—Improving. Mist. gent. co. ter die. Omit the saline.

6th.—The sponge was removed from the vagina, and the catheter changed, Some warm water was injected to wash out the vagina.

7th.—The patient was allowed to resume the supine position; the catheter was removed.

8th.—Ol. ricini ℥iv. statim. The rectum had not been re-

lieved since the operation. The patient was unable to retain her urine longer than twenty minutes.

9th.—The castor oil had operated freely during the previous night. The sutures were cut and removed. A chop was ordered.

12th.—The incontinence still continues; the patient is able to retain her urine for about half an hour when lying on her back. Haust. domest. ʒi.

17th.—Complains of constipation Ext. aloes aquons gr. ij. noete.

20th.—An examination was made, and the opening was found to have become closed; the urethra was dilated, easily admitting a finger. This explains the incontinence persisting.

21.—Arg. nit. was applied to the orifice of the urethra to produce contraction.

25th.—A saturated solution of alum was applied to the urethra.

March 4.—Another examination was made, and the fistula was found completely healed, and it was evident that all the urine passed through the meatus urinarius.

8th.—The patient was discharged cured of the fistula, but still suffering from incontinence by the urethra.

ST. THOMAS'S HOSPITAL.

SYPHILITIC DISEASE OF THE BRAIN—DEATH FROM TYPHUS FEVER—AUTOPSY.

(Under the care of Dr. PEACOCK.)

Samuel Round, aged 34, an omnibus conductor, was admitted on January 30, 1855.

History.—His wife states, that, at the beginning of August, 1854, he noticed swelling, with pain, over the right eye, which he attributed to cold and drinking. When this subsided, the eye became more prominent, for which he went to the Moorfield Institution, and from this time he gradually lost the sight of that eye. This was attended with no pain. Three months ago he suddenly became very feverish, rather delirious, had rigors, and then became rather disposed to sleep. At the same time he lost the use of the left side of the body, but this only lasted for two days. He then got well, with the exception of some tingling in the direction of the right temporal region; this tingling sensation had returned occasionally up to within a week of his admission; he then began to feel drowsy, sleepy, and unfit for work. In a few days the left arm twitched several times, preceded by a violent hiccoughing. This drowsiness continued to increase, and questions were only answered reluctantly.

Fifteen years ago, he had primary symptoms, and traces of old scars are found in his throat; also the traces of cicatrices in the left groin rather extensive. His face is somewhat chapped, and the skin scurfy, and there is a slight appearance of eruption about the forehead. He now complains of pain in his forehead, more particularly on the right side. He has about equal power in both hands, and has recovered the use of the right arm for about a fortnight.

The right eye is very prominent; pupil somewhat small, and entirely unaffected by light. There is slight deviation of the mouth to the left side, but the tongue is protruded straight. His wife states that his mind is very torpid, but he has not been actively delirious. The tongue is lobulated and chapped; head somewhat large; the paralysis of the right side of the face is more perceptible when he speaks.

Emp. lyttæ nnchæ; pil. rhei. c. hyd., gr. v. o. n. ℞ Potass. iod. gr. iv.; liq. potassæ, ɱ xx., ex. dec. Sarzæ co. ter die. Milk diet; beef-tea.

February 2.—He seems to have taken cold coming to the Hospital. His face appears œdematous. To discontinue pil. et med.

℞ Pulv. ipecac. co. gr. v.; calomel. gr. ij., h. s.; mist. pot. tart. 4tis horis.

The urine is not albuminous.

6th.—His cold is much better, and the Sister says he is altogether better. He is quite intelligent at all times. Tongue still retains the peculiarly lobulated and mottled appearance. The right pupil is much smaller than the left, and is quite insensible to the action of light, and there is no vision in the eye.

Discontinue last medicine. Repeat Mist. iod. pot.

9th.—He complains of pain over the right eyebrow, and has had it before he came in. The skin of the forehead is rather puffy, and is tender on pressure; has had it now for two days; tongue moist, and less chapped and lobulated than before; pulse quiet; intelligence not impaired. To continue seton nuchæ.

13th.—There is a great improvement in his general appearance; he looks more intelligent, and the Sister says he is so. The pain above the right orbit, of which he complained, is quite gone; but the eye is still prominent and somewhat everted, and the pupil smaller than the other and unaffected by the stimulus of light; gums are slightly swollen.

16th.—Two days ago there were two small swellings on the right forehead above the exact spot where the pain was felt. The right pupil is still more contracted than the left, and the eye prominent and greatly everted, and pupil insensible to light (when more directly exposed to light there seemed to be some slight action, 2 days ago); gums are somewhat spongy; tongue still lobulated but cleaner. At the root of the uvula and also at both tonsils, but more particularly at the right, there are extensive traces of old ulcers which are now healed.

23rd.—Since the last notes were taken he has continued to improve; the swelling in the right temporal region is quite gone, and he has no pain there, but the right eye is still more prominent than the left, pupil is much smaller but regular, and is little if at all affected by light. There is some deviation of mouth to left side; there is about equal power in both hands, and no appearance of dropping of the leg; the skin of the face has a tendency to chap and scale off; when he suffered from pain, this was not increased towards night; he speaks somewhat thickly and is slightly disposed to talk, but not incoherently; he has been in the habit of drinking spirits to excess.

March 14th.—He states he was quite as well as usual up to yesterday afternoon, when he was taken with thirst and sore throat without either pain in his head or back, or rigors; tongue is now dry, brown, and furred; pulse 120, soft and compressible; skin moderately warm and slightly dry; there is a copious eruption over the trunk and extremities of patchy purple coloured spots, slightly elevated, not acuminated and fading on pressure, some of them lie tolerably close together so that there would be 10 or 12 spots within a 1 inch radius, but others are more separated; bowels not opened since last night, but twice yesterday. Discontinue other medicine.

Mist. Pot. chlorat c. dec. cinch., 3tis horis. Wine 1 glass.

19th.—Has had a better night; bowels rather relaxed; eruption still out though fading; he has some jactitation; seton to be removed. Emp. lyttæ nuchæ. Brandy 2 glasses. Wine 2 glasses.

He was exceedingly torpid; eyebrows continually fluttering; cheeks puffed out with each inspiration; and a peculiar starting motion to which the whole body and head was subject; continually moaning; tongue red at tip, and covered with a thick dirty brown fur on the dorsum; skin hot and dry; eruption still out; pulse 120, soft and compressible; bowels relaxed 3 or 4 times.

About 9 o'clock in the evening the jactitation had been very much increased; he was seized with a kind of fit and foamed at the mouth, and was very much convulsed, with his eyes very staring; the left arm being constantly in motion and his whole body very much convulsed; Mr. Clapton ordered cold lotion to be applied to the head, and head to be shaved. The convulsions continued the whole of the night, and up to his death, which took place at 11 o'clock this morning (20th).

Autopsy.—There was a considerable amount of fat everywhere; the pleura presented a few old adhesions, but otherwise healthy. Lungs rather large, somewhat congested at their lower lobes, but crepitant throughout and otherwise healthy; pericardium healthy; the heart was rather flabby and pale, but healthy. The liver was very large, pale, and flabby. Spleen and kidneys all very large, pale, and flabby. The spleen presented several patches of lymph, of about a line in thickness. On taking out the brain, the dura-mater was found considerably thickened, adherent at the lower surface of the right middle lobe, behind the fissure of silvius, so that it could not be removed without rupture from that part. The disease involved the optic nerve, which presented a reddish-gray appearance, and was so soft that it was torn away in removing the brain. The grey matter of the right middle

lobe, and the adjacent white matter, was very much softened, and, under the microscope, presented well marked inflammatory products. The small intestines appeared healthy; the solitary glands not visible, and the aggregate glands, though perceptible, were not elevated, or distinctly defined, and were free from all appearances of disease; the heart and lungs were healthy. The central portions of the brain corresponded with the rest of the organ in being soft, probably from post-mortem change, but was not otherwise diseased. The superficial softening involved the optic nerve, anterior to its commissure.

ST. MARY'S HOSPITAL.

GUTTA PERCHA CATHETER BROKEN INTO THE BLADDER.

IMPASSABLE STRICTURE—BLADDER CUT INTO, FOR THE REMOVAL OF THE FOREIGN SUBSTANCE WITHOUT THE USUAL AID OF A STAFF INTRODUCED ALONG THE URETHRA.

(Under the care of Mr. LANE.)

James Dowse, aged 49, was admitted in St. Mary's Hospital, Feb. 16, 1854. On the previous day he had passed for himself a small, spirally-twisted gutta percha catheter, which he had allowed to remain all night in his urethra. On attempting to withdraw it in the morning a portion only, about two inches in length, came away, the rest remained in the urethra and bladder.

He had laboured under stricture of the urethra since 1840, and had been treated by various Surgeons for that disease. The smallest-sized instruments could alone be introduced, and sometimes, for months together, none at all. His urethra was very irritable, and the attempt to pass an instrument was frequently followed by rigors. He had been in St. Mary's Hospital a year previously, when, with great difficulty, the smallest-sized gum catheter was introduced into the bladder and retained there for twenty-four hours. A violent attack of shivering followed, accompanied by pain and swelling of the right shoulder. The joint became acutely inflamed, and, in spite of active treatment, abscesses formed, the cartilages ulcerated, and he ultimately recovered with anchylosis. During the treatment of the disease in the shoulder no instruments were used, and the stricture remained *in statu quo*. He left the Hospital with the intention of returning when his health improved, to have his stricture treated by perineal section. While out of the Hospital he had been introducing for himself the smallest-sized catheters, and allowing them to remain in the urethra several hours. It was on one of these occasions that the present accident occurred.

On his admission into the Hospital, Civiale's urethra forceps was employed, and two pieces of the broken catheter were readily extracted, measuring, together with the first piece removed by himself, about five inches. No instrument could be introduced through the stricture; he was, however, able to empty his bladder by his own efforts, although with great difficulty and pain.

The remainder of the broken catheter could not be felt in the perinæum, or by the rectum, and it was supposed, therefore, to be situated in the bladder. He remained in the Hospital, and was closely watched for a fortnight. During this period, he had been able to void his urine by drops; but it gradually became mixed with pus; his health began to suffer seriously, and at last he could not pass it at all. It was, therefore decided, after a consultation, that an attempt should be made to cut into the bladder, notwithstanding no instrument could be introduced along the urethra. The patient was placed under the influence of chloroform, and another attempt was made to pass the smallest-sized grooved staff, but in vain.

Mr. Lane then made an incision in the median line of the perinæum, about an inch and a-half in length, extending from just behind the scrotum to within half an inch of the verge of the anus. The bulbous portion of the urethra covered by its muscle was exposed, the incisions being continued backwards through the deeper structures, carefully in the median line, the membranous portion was, after some difficulty, laid open, and a probe passed into it. A small, common grooved staff was then made to replace the probe, and passed onwards into the bladder. This was held in the usual position, as in lithotomy, and served as a guide to the knife in cutting into the bladder. The finger introduced detected three separate pieces of the catheter, which were removed by the common dressing forceps without difficulty. The smallest of these was about an inch in length, the other two rather longer. The patient slowly recovered from the operation, and left the Hospital in the month of May. The wound had healed, and he passed his urine in a small stream by his own efforts. His general health, however, remained much impaired.

OPERATIONS FOR THE CURE OF VESICO-VAGINAL FISTULA.

Under the head of Plastic Operations, we have had frequent occasion, in our Statistical Reports, to mention the performance of those intended for the cure of Vesico-Vaginal Fistulæ. It may, perhaps, be instructive if we now review the experience of the London Hospitals during the last few years in respect to the treatment of this most distressing and troublesome malady; and we are the more induced to select the present time for so doing, because we have to-day the pleasure of being able to record two cases in which operations have recently been performed with complete success. It will be convenient to enumerate the several methods which have been pursued by different surgeons, and to make a few brief remarks respecting each; but before doing so, as some rough criterion of the difficulties which attend them, we may mention that the two cases referred to are, we believe, out of the whole of those treated during the last three years, the only ones in which complete closure of the fistula has been obtained. This statement must not, however, be allowed the full discouraging influence which at first sight it might seem to possess; since, although a perfect cure has been effected in so small a proportion, yet in almost all of them more or less of benefit was obtained; and in not a few the patient was, to a very great extent, relieved from her distressing symptom.

Treatment by pessaries, etc.—Of the various methods for affording, by mechanical appliances, relief to the incontinence of urine, we need say but little, as, almost without exception, their use has proved unsatisfactory. In most cases, before the patient presents herself at a London hospital, ingenuity in this direction has been exhausted; and we believe we may record the general experience of the Profession that, excepting in certain cases in which the fistula is small, and so obliquely placed as to be almost valvular, very little benefit can be obtained from any form of instrumental appliances.

The application of caustics.—The actual cautery is the only remedy of the escharotic class which appears to enjoy any measure of confidence. There are some reasons for suspecting that the cases recorded as cures by the repeated application of nitrate of silver, etc., may not really have been such. It is much more easy by such means to reduce the fistula to a very small size, so as to be readily overlooked in examination, than to procure its perfect closure. A woman was recently under Mr. Paget's care in St. Bartholomew's, for a large fistula, whose case had been published by a Provincial Surgeon as an example of cure by caustics some twenty years ago, the source of error having, in all probability, been that alluded to.

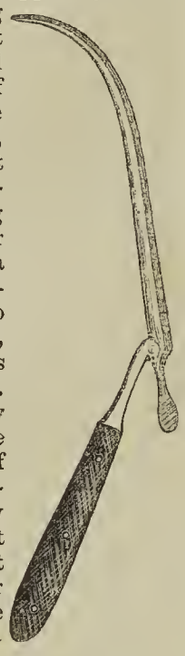
The Actual Cautery.—Several cases in which the fistula was either too large or too high up to be suitable for operation have been very much benefited by repeated applications of the actual cautery. After each successive application contraction of the opening results, and often to a very considerable extent, so that by perseverance it may be reduced to a mere pinhole, through which, excepting when the bladder is overdistended, no urine will escape. Cases have been thus treated under the care of Mr. Paget in St. Bartholomew's, Mr. Marshall in University College, and Mr. Pollock in St. George's. The application is all but painless, and by far the most convenient method of making it is by means of a wire heated by a galvanic battery. We are not aware of any case (in the London Hospitals) in which complete closure has been obtained by this plan.

Plastic Operations.—Of the various forms of operation which have been practised we shall best speak in giving the detail of the two cases which are to follow. The operators have been Mr. Paget, Mr. Luke, Mr. Pollock, and Mr. J. B. Brown.

NEW INSTRUMENT.

NEW FORM OF RETRACTOR FOR USE IN EXCISIONS OF JOINTS.

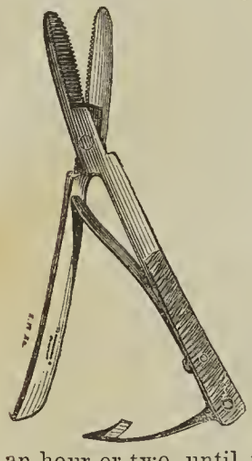
The instrument represented below has recently been brought into use in Paris, for the purpose of protecting the soft parts in operations requiring the section of long bones. It is a curved and pointed piece of deeply grooved steel, fitted by a strong hinge to a wooden handle. Its great advantage over copper or bone spatulæ is its ease of introduction. Supposing that it were desired to cut through the shaft of a long bone, its articulating extremities being yet undisturbed, the only way in which it would usually be attempted, would be by means of a Hey's saw. The section would have to be accomplished under difficult circumstances, and with much risk of injury to the adjacent soft parts. With the new director the process would be greatly simplified. Having first passed the point of the instrument under the bone, its concavity looking upwards, a manœuvre from its form very easy of accomplishment, the operator would then turn it so that the concavity should look downwards, and the hooked extremity hold the soft parts on the further side out of the way of the saw. The straight part of the director would now be under the bone to be divided, and the groove uppermost; the hinge now allows of the handle being depressed so that the Surgeon's hand holding it is not endangered by the saw. Holding the retractor in his left hand the Surgeon may now, without the least difficulty, use an ordinary saw with the other and accomplish the section in a tenth of the time it would have occupied under other circumstances.



The instrument was, we believe, brought to London by Mr. Moss of Tunbridge Wells. The one from which the sketch has been taken was made by Mr. Ferguson of Giltspur-street.

MODIFICATION OF THE BULL-DOG FORCEPS.

At the suggestion of Mr. Paget, Mr. Ferguson has recently constructed self-acting forceps which dispense with the cross action principle. Those known as bull-dog forceps, were, from their reversed action, difficult both of application and removal. The new ones are simply a very short pair of ordinary forceps, fitted with a catch at the end. The appended cut shows their full size. They are intended for employment in operations for the temporary control of bleeding, and would be especially useful when the operator might chance to be short-handed. Another use would be, after the completion of the operation in case of hæmorrhage from any deeply seated spot, hæmorrhage from a vein, or where the vessel itself could not be discerned. In such, one of these forceps might be left on for an hour or two, until the tendency to recurrence of bleeding had ceased. With especial reference to bleeding after lithotomy or other operations on the perinæum, some of the forceps have been made with curved blades.



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Medical Times & Gazette.

SATURDAY, SEPTEMBER 13.

MEDICAL ATTENDANCE ON DOMESTIC SERVANTS.

While sitting at our editorial table, arranging papers, and meditating the subject of our weekly address, there enters a Medical friend brim-full of a grievance which he begins to denounce and expose; and being convinced that he is by no means a solitary sufferer, we very willingly comply with his request.

We may as well let him tell his grievance in his own words.

"One night lately," he said, "I had gone to bed excessively fatigued with a very hard day's work. Diarrhœa was prevalent, there were dark apprehensions that cholera would visit us, consequently my patients were in a fever, and my calls unusually frequent and urgent; moreover, I myself was not without a slight touch of the prevailing epidemic. Well, this being the case, just as I was wrapped in a sound and thoroughly well-earned slumber, my servant comes to wake me, and with an intimation that I must come immediately to see the housekeeper of Miss Blank, at No. so-and-so's, who was dangerously ill with bowel-complaint. I rise, and see the messenger, and intimate to her, that it is not my custom to attend domestic servants in families, unless with the sanction, and at the expense, of the master or mistress. The only answer I get to this intimation is, that the patient is dangerously ill, and that I must come as soon as possible. Accordingly, I go; I find an upper servant ill with diarrhœa, and spasmodic pain of great intensity; I write my prescription, wait till the medicine is brought, administer some of it, with some warm brandy and water, and, after the best part of an hour, depart, leaving the patient easier. So home I go, but not to sleep; my former sound repose is converted into a feverish tossing about till daylight. The next day, in the course of my visits I call at this house, and am ushered into the presence of the mistress, a keen-looking, little old woman, with a yellow wig, and skin to match. On my mentioning that I had seen her servant in the night, she replied,—'Ah! yes; a case of windy spasms; some people, you know, are frightened at anything.' Upon which, I reminded her that, at this season, maladies of the sort in question sometimes end in a worse way than wind; and, after some little conversation, I recommended her to put her servant under the care of her own Medical Practitioner, and to give me a fee for my visit, as I did not wish to continue in attendance. It would have edified you to have seen the rage and defiance depicted on her visage, and to have heard her volubility in abuse. As for my getting up at night, she said, what are medical people for? Of course, they must expect to be called up at night! besides, I had made her quite ill by the loud tone in which I called for brandy in the night! As for her servants, their illness was nothing to her; she did not send for me, and should not pay me, and she should expose me wherever she went for my insolence in demanding a fee of her! Now, the fun of this thing is really so great, that I suppose I must content myself with that, as my compensation for my broken sleep, and for the languid, weary feeling, which haunts one the next day. But such fun may not be pleasant to everybody; so, Mr. Editor, see if your pen can protect us against a repetition of it."

We feel that our friend has given a palpable instance of a grievance from which very many members of our profession suffer, and particularly in what are called *genteel* neighbourhoods. We ourselves have been victimized scores of times. A most urgent message comes, begging us to see a sick person at such a house. Suppose we refuse to go, on the ground that we are certain of not being paid? Then possibly it may turn out that the case was really an urgent one, in which timely assistance might have saved life: perhaps there may be a Coroner's Inquest; and then how loud would be the denunciations of comfortable tradesmen on the jury, who are wont to

snore away their eight hours with no disturbance from night-bells, against the inhumanity of a physician or surgeon who refused to rise from his bed to see a poor dying creature! So that, to say nothing of motives of good feeling and humanity, the fear of misrepresentation in case of accident will compel most of us, however reluctantly, to attend to these calls.

How much the public are disposed to abuse the kindness of our Profession is well illustrated by a little occurrence which came under our own observation. A small tradesman was taken suddenly ill, whereupon his wife dispatched a servant to every Medical man in the neighbourhood. We happened to be one of the privileged number, and arrived at about the same time with one of our neighbours; and we had the gratification of hearing the mistress tell her servant, "Now there's two, don't let no more of them Doctors in." The curt announcement, that he was n't wanted, was all the compensation that three or four gentlemen got for their promptitude in coming to relieve a fellow-creature in distress.

Just so it is in the case of domestic servants. The Practitioner is sent for, with a message that amounts almost to compulsion; he cannot help going; and then for payment, when he applies to the master or mistress of the house, he is told that they have nothing to do with their servants' Doctor's bills, and is referred to the servant; and nobody who knows the present state of London domestic arrangements—how many persons there are who occupy furnished houses, and engage servants for short periods—will need to be told that this is equivalent to bidding him recover his money the best way he can.

Of course, the argument of the master in such cases is, that he pays his servant sufficient wages; and that it is a matter of private arrangement between them that the servant shall provide himself with Medical attendance. No doubt, in the case of any chronic illness, or in any case in which there is time to select and make arrangements with a Medical attendant, this is fair enough. A Practitioner who attends a servant, knowing that he is employed by, and must look for payment at the hands of, that servant, of course takes the risk on his own shoulders, and, in the event of not being paid, has no right to make a claim upon the master.

But the case is far otherwise when the illness is sudden and alarming, and allows no time for choice or arrangement. In this case the question, Who shall pay? may be answered by another question, At whose door would the responsibility lie, an inmate in any house were permitted to perish without Medical attendance? Suppose Miss Blank, with a solitary servant, refusing either to take notice of that servant's illness, or to send for Medical aid, on the plea that it was no concern of hers; adding that, if her servants choose to be ill and die, can't help it! What would a jury say to this?

Undoubtedly, the onus of taking such measures as are necessary to preserve life, where there is reasonable ground of alarm, lies with the householder. He may, if he chooses, treat his servant as a destitute person, and send him or her to the workhouse, or summon the parish Medical Officer. But, if he allows any Medical Practitioner in the neighbourhood to be sent for in urgent haste, he is bound to pay him, or to see that he is paid.

We say nothing at present of the want of common Christian feeling, which too often allows masters and mistresses to treat sick servants with less ceremony than they would sick dogs or horses. We are arguing on the legal bearing of the question, and assert, that the providing Medical attendance on an emergency is a duty which householders cannot evade; and we hope our readers will resist the shabby and piratical practices of persons who allow their sick servants to be dependent on the charity of the members of our Profession.

THE WEEK.

An unpleasant rumour has lately been propagated as to the sanitary condition of Boulogne; and the death of several persons, some of public notoriety, from zymotic diseases, has created almost a panic among the visitors to that favourite watering-place. We have hitherto refrained from noticing the reports which have come to our knowledge, from a desire to avoid adding to the alarm which we knew already existed, although we are quite aware that the hygienic condition of the town leaves very much to be desired. In fact, the houses of Boulogne, instead of being built opposite to the sea, are chiefly situated along the side of a tidal harbour of great length, which twice in every twenty-four hours is abandoned by the sea, and emits the most nauseous and noxious emanations into the surrounding atmosphere. Far from wondering that zymotic disease is occasionally prevalent, our only surprise is that it is ever absent, when we take into consideration the influence of the harbour just referred to, and the general faulty construction of the houses themselves, which are badly drained and badly ventilated. We learn, however, from a letter published in the *Times* of Monday last, and signed by three French Physicians and one English Physician of undoubted respectability, that the mortality during the present summer has not materially exceeded that of the last; and this statement is supported by the evidence of statistics. It is also asserted on the same authority, that fevers, scarlatina, and other diseases of the same type, are usually less severe at Boulogne than at other places. The Mayor of Boulogne has also written a letter showing that the mortality in the town, from the 1st of January to the 31st of August, 1856, has been actually less than in the corresponding period of the year 1855. Notwithstanding these statements, the truth of which we do not dispute, it is to be hoped that the sanitary condition of Boulogne will receive the vigilant attention of the authorities; for, assuredly, in many points there is great need of improvement.

In another part of this week's Journal will be found an account of an inquest held at Lowestoft, in which a verdict of manslaughter was returned against a Mr. Matcham, practising as a surgeon in that town. The woman who was the subject of the inquiry, was in labour of a child at seven months, and Mr. Matcham employed the forceps and a *spoon* to expedite the delivery, which was accomplished with some difficulty. The patient lingered for a week after delivery, but died after being seized with diarrhœa and hæmorrhage; and on a post-mortem examination, it was found that the vagina was much lacerated, and a portion of the placenta was retained in the cavity of the uterus. The Medical witnesses gave it as their opinion that death was caused by the improper use of instruments. It is not very clear whether Mr. Matcham is a qualified member of the Medical Profession; his name does not appear in the London and Provincial Medical Directory, but he states that he holds a diploma from a College in New York. In the present state of the matter, we think it inexpedient to offer any opinion as to the alleged malpraxis, but two points in the case are certainly deserving of attention. In the first place, it appears that Mr. Matcham positively refused the offer of a second opinion in a case which certainly required the utmost care and deliberation; and in which any practitioner, however skilful, ought to have availed himself of such proffered assistance. In the second place, we disagree with the Coroner in his extreme tenderness towards unqualified practitioners; that functionary having laid it down as the law, that practising without a qualification in dangerous and difficult cases, was not an important feature to guide the minds of the Jury to a decision. In our opinion it is one of the worst of crimes to practise a difficult art under

the pretence of being duly educated and qualified, and to rob patients, especially the poor and ignorant, of their money and to destroy their lives. We do not assert that Mr. Matcham is not qualified: but we strongly dispute the Coroner's views with regard to illegal practice.

There is nothing which excites our wonder more than the tone of doubt which has been displayed in a late discussion before the Académie de Médecine on the subject of bronzed skin and disease of the supra-renal capsules. As the facts are all new to the French Profession, and the theory, when propounded for the first time is certainly a startling one, it was but to be expected, and indeed to be desired, that it should be received with some incredulity. One feature of the discussion does, however, somewhat astonish us, and appears to call for comment, and that is the extreme carelessness with which the facts recorded by Dr. Addison, and the series of cases collected by Mr. Hutchinson in our own pages, appear to have been examined. M. Gibert is surprised that a London Physician should in his own practice have met with so many as sixty cases of a disease which no one else had ever seen, and his surprise is expressed after a fashion not the most complimentary to Dr. Addison's honesty of observation. His assertion is unchallenged by any member of the Académie. Now, the fact is, that Dr. Addison has recorded but twelve cases, and the entire number of those which, after soliciting the co-operation of the whole British Profession, Mr. Hutchinson was able to get together amounted only to twenty-seven! In this week's *Gazette Hebdomadaire*, a case copied from ourselves is published as exceptional to the theory in question, which only becomes so by the omission of all notice both of the comments on it and of a subsequent addition to its narrative. Had it been extracted faithfully and in full, the case is not exceptional at all. M. Trousseau, indeed, appears to be the only one of those who took part in the discussion, who has cared to master the published evidence respecting the matter under debate. Few qualities of mind are more useful in scientific pursuits than a wholesome scepticism as to novelties, but to such a title the careless neglect of inquiry to which we have adverted has no sort of claim.

We are glad to observe, from a prospectus which has been forwarded to us, that the York School of Medicine has arranged for the delivery of a course of lectures on Psychological Medicine. Many illustrations have recently occurred of the necessity of a more general diffusion of knowledge respecting mental disease, both as respects its treatment and its relations to Forensic Medicine. It is much to be desired that the example of having a chair devoted to it may be followed in the other schools, both London and Provincial.

A subject has been introduced in a letter to the *Times*, to which (as well as to the adulteration of drugs) we have frequently adverted, but which has not hitherto engaged the attention of the political papers. We allude to the sale of drugs, including poisons, by chemists and druggists, who have given no evidence, by examination or otherwise, of their competency for the trade they exercise. As the letter in question, although in substance only a reiteration of our own arguments, is couched in terms of considerable vigour and terseness, we extract it entire, in the hope that, by extended publicity, the very serious evil to which it points may find a remedy.

"Sir,—Your very excellent remarks on the recent poisoning cases, together with those offered by your correspondents on the sale of poisons, are, I think, generally acquiesced in throughout the whole length and breadth of the land, and will, I have no doubt, ultimately be productive of such measures as will remove from us the evils complained of. But while we are giving the matter our consideration, will it not be well for us to view fairly the relation in which the "chymists and druggists," and the vendors of medicine generally, stand in reference to the public? I am connected with a trade that takes me much among the retail sellers of physic, and, while in their numbers I find many highly intelligent and well educated men, I can assure you there is more than a fair leaven of the reverse mixed with them. I will not say much of country shopkeepers, who sell well nigh everything, from paregoric to a gridiron, or from arsenic to a satin dress, and whose principal knowledge of their commodities lies between the price they pay and the price they receive for their articles, and who would sell you any one of them with equal complacency; indeed, of this we need not complain. Such traders in their respective localities are very necessary, in any article but drugs; and, as their administration is frequently matter of life or death, I would have them placed in other hands than the majority of such country shopkeepers.

"These, however, are not the only persons over whom I would have a strict supervision. Many of those who deal, especially in drugs, in the lower localities of our large towns, know but little more than the names of the drugs they sell. Surely, Sir, this should not be; for in the low neighbourhoods of which I speak, the druggist is looked upon by his poor and ignorant customers as somewhat of, if not quite, a doctor. If Mrs. Jones, or Mrs. Jones's baby is unwell, or John Smith, the puddler, has burnt his arm to the bone, the proprietor of the "pestle and mortar" sign is applied to for stuff, &c, The stuff they are sure to get, but whether the anticipated result is equally sure I am somewhat doubtful. Nevertheless, cases of some difficulty are continually falling into their hands, which are treated in various ways, and in many instances to the disadvantage of the poor. I would also include in the number to be brought under Legislative control the numerous quack herb-doctors, many of whom deal in 'wonderful strong stuff,' as I have heard it called, but who mostly act as jackalls to the qualified medical man. This all seems to me to suggest that every one selling or dispensing drugs should undergo (before some properly constituted authority) an examination; and upon being found to possess a proper knowledge of their trade, should be granted a certificate or licence, or whatever it may be, and allowed to enter business as 'chymists and druggists.' I think with such a class of men, the poisoner would seldom evade their intelligence, and the poor would get drugged to their advantage.

"I am, Sir, yours with respect,

"Ward-end, Sept. 6. E. G."

REVIEWS.

The Medical Profession in Ancient Times: an Anniversary Discourse delivered before the New York Academy of Medicine, Nov. 7, 1855. By John Watson, M.D., Surgeon to the New York Hospital. Published by order of the Academy. pp. 222. New York. 1856.

We have recently noticed, in terms of commendation, the translation of Renouard's History of Medicine, by Dr. Comegys, Professor of Medicine at Cincinnati. The work before us furnishes another instance of the laudable desire of American teachers of Medicine to impart that kind of soundness and broad philosophical basis to their teaching, which can only be derived from a knowledge of the steps by which medical art has attained its present position, and of the errors into which it has from time to time been betrayed, when it has left the sure path of observation, and has attempted a short cut to perfection, under the guidance of some prevalent form of speculative philosophy.

The discourse before us, contains an elaborate epitome of the whole of the ancient schools of medicine, and their doctrines, with a succinct account of those Physicians whose reputation or whose works have been handed down to us. It is extremely useful, not only for what it teaches, but for the numerous references which it gives to the works of the ancients and to such of the moderns as have distinguished themselves by their researches in ancient medicine. We may quote the following passage, not merely for the smile which it may excite, but to show, such is human nature, that quackery and

credulity have always gone carefully hand in hand, and the temples of Æsculapius were resorted to by Greeks, who, could their souls now animate the bodies of Englishmen, would be flocking to the German baths, or the establishment of the hydropathist.

"It was the interests of the priests to cherish the superstitions of the people. Their devices for this purpose, Aristophanes has humorously portrayed in the comedy of Plutus:—

'Having bathed Plutus in the sea,' says the servant Cario, 'we went to the temple of Æsculapius; and when our wafers and preparatory sacrifices were offered on the altar, and our cakes on the flame of Vulcan, we laid him on a couch, as was proper, and made ready our own mattresses. . . . When the priest had extinguished the lights, he told us to go to sleep, adding, that if any of us heard the hissing we should by no means stir. We therefore all remained in bed, and made no noise. As for myself, I could not sleep, on account of the odour of a basin of savory porridge, which an old woman had at the side of her bed, and which I longed for amazingly. Being, therefore, anxious to creep near it, I raised my head, and saw the sacrister take the cakes and dried figs from the sacred table, and, going the round of the altars, put all that he could find into a bag. It occurred to me that it would be meritorious in me to follow his example, so I arose to secure the basin of porridge, . . fearing only that the priest might get at it before me with his garlands on. . . . The old woman, on hearing me, stretched forth her hand, but I hissed, and seized her fingers with my teeth, as if I were an Æsculapian snake; then drawing back her hand again, she lay down, and wrapped herself up quickly, . . . while I swallowed the porridge, and, when full, retired to rest.'"

A Comparative Enquiry as to the Preventive and Curative Influence of the Climate of Pau, and of Montpellier, Hyères, Nice, Rome, Pisa, Florence, Naples, Biarritz, etc., on Health and Disease. With a description of the Watering Places of the Pyrenees, and of the Virtues of their respective Mineral Sources. By Alex. Taylor, M.D., F.R.S.E. A New Edition. Pp. 355. London. 1856.

The first edition of this work appeared fourteen years ago, and from the popularity which it attained, the author has been induced to present it again to the public, with such alterations and additions as the change of circumstances demands. It is written in a very agreeable style, embracing the historical, antiquarian, geological, and Medical features of Pau and other watering places in the Pyrenees. The virtues of other climates are discussed, and, as may be imagined, the palm is awarded to Pau; but it must be admitted that Dr. Taylor does not bestow indiscriminate eulogy upon this well-known spot. His remarks are candid and judicious, and invalids who propose a journey to the Pyrenees may consult his pages with advantage. It is no small tribute to the salubrity of the climate of Pau, that the celebrated Louis, who unfortunately lost a son after an unsuccessful trial of this place as a residence, has nevertheless recorded his written testimony to its salubrity as a resort for invalids affected with pulmonary disorders.

PROGRESS OF MEDICAL SCIENCE.

ON THE ACTION OF URARI AND OF STRYCHNIA ON THE ANIMAL ECONOMY.

By Professor ALBERT KÖLLIKER of Würzburg.

Communicated by Dr. SHARPEY, Secretary to the Royal Society.

The communication which I now offer to the Royal Society, contains a brief statement of the results of a series of experiments which I lately made on the action of the urari poison and of strychnia on the animal economy.

I. Urari.

The urari is the well-known poison from Guiana, also called Curare and Woorara. That which I employed in my experiments I owe to the liberality of my friend Professor Christison of Edinburgh. The following are the conclusions at which I arrived respecting its operation:—

1. The urari causes death very rapidly when injected into the blood or inserted into a wound; when introduced by way of the mucous membrane of the intestinal canal, its effects are slow and require a large dose for their production, especially in mammalia. When applied to the skin of frogs it is altogether inoperative.

2. Frogs poisoned with very small doses of urari may gradually recover, even after it has produced complete paralysis of the nerves. Mammalia may also be restored, even after large doses, provided respiration is maintained artificially.

3. The urari, acting through the blood, destroys the excitability of the motor nerves. In frogs under its operation the terminal branches of these nerves within the muscles lose their excitability in a few minutes, whilst their trunks become affected an hour or two later. If, after the nervous extremities have become paralysed, the heart of the animal be excised so as to prevent the nerves from receiving any further share of the poison, the nervous trunks may retain their excitability for three or four hours.

4. The brain is less affected by the urari than the nerves in the muscles; still when, by ligature of the two aortic arches, in frogs, the poisoning is confined to the anterior half of the body, the voluntary movements of the limbs speedily cease, while automatic movements, of doubtful nature and probably proceeding from the medulla oblongata, may be still observed for half an hour or an hour after the poison has begun to operate.

5. The spinal cord is considerably less affected than the brain by this poison, and by local limitation of the poisoning (as in No. 4) it is found that the cord retains its reflex activity from half an hour to an hour and a half, and the excitability of its white substance or its conducting power from two to three hours after the poison has taken effect. It is worthy of remark that in such cases the impaired reflex activity of the spinal cord may be revived by strychnia directly applied to it.

6. The sensory nerves, as shown also by locally limited poisoning, retain their functional activity as long at any rate as reflex actions can be excited, and when the depressed reflex activity has been revived by means of strychnia, these nerves are found not to have been in the slightest degree injured, so that it seems doubtful whether the urari in any way affects them.

7. The nerves of the involuntary muscles and of the glands are also paralysed by the action of urari, at least I find this to be true in the following cases, viz.—

a. The pneumogastric, as regards its influence on the heart.

b. The sympathetic (its cervical portion), in its relation to the iris.

c. The nerves of the posterior lymph-hearts of the frog.

d. The nerves of the vessels in the web of the frog's foot

e. The splanchnic nerves of the rabbit, as affecting the peristaltic motions.

f. The nerves governing the secretion of the submaxillary gland in dogs.

8. The voluntary muscles remain perfectly excitable, but show a greater tendency than usual to merely local contractions. In general the cadaveric rigidity of these muscles appears to set in later than usual.

9. The plain or non-striated muscles also remain long irritable after poisoning by urari.

10. The heart, in amphibia, is little affected by urari. Its pulsation as well as the circulation of the blood goes on regularly for many hours after the poisoning is established. The only thing worthy of note is that the beat of the heart appears to be somewhat quickened, probably from paralysis of the pneumogastric nerves. In frogs poisoned with urari, the heart, when cut in two, shows the usual phenomenon, namely, that the half which contains the ganglia continues to pulsate while the other does not; from which it may be inferred that these ganglia are not paralysed. As to the nerves in the substance of the heart, those at least which are derived from the pneumogastric, are unquestionably paralysed (vide No. 7).

11. The lymph-hearts of frogs poisoned with urari soon cease to move.

12. The blood of animals poisoned by urari is fluid and dark, but coagulates when drawn from the vessels, and forms a weak clot which is but little reddened by exposure to air. Directly mixed with blood, urari does not prevent coagulation, but the blood in this case also remains dark and scarcely reddens on exposure.

13. The blood of animals poisoned by urari has the same poisonous qualities as that substance itself, but not in a degree

sufficient to produce the full effects of the poison. Urari when directly mixed with blood loses none of its efficacy.

14. Urari, in concentrated solution, applied locally to nerves extinguishes their excitability, but only after a considerable time, and it appears to act similarly on the nerves in the substance of the muscles. Dilute solutions have no injurious operation. Applied directly to the brain and spinal cord, urari is altogether harmless provided its absorption be prevented.

15. When artificial respiration is kept up in quadrupeds poisoned with urari, I find that, as observed by Bernard, many of the secretions become increased—as the tears, saliva, urine and mucus of the air-passages, which effect appears to be owing to the paralysis of the vascular nerves and consequent dilatation of the vessels caused by the poison.

16. In mammalia urari causes death by paralysis of the respiratory nerves and suppression of the respiration, which brings on convulsions in these animals as a collateral effect. In frogs the final extinction of the functions may also be partly ascribed to suppressed action of the lungs and defective oxidation of the blood, which at length renders the heart unfit to perform its office; but it must be observed that in this case the cause of death is not so plain, inasmuch as in these animals the functions are in a great degree independent of the pulmonary respiration.

II. Strychnia.

Some experiments with strychnia (the acetate) gave the following results:—

1. Strychnia has not the least influence on the peripheral nerves through the blood, which is best shown by cutting the nerves before administering the poison.

2. Strychnia paralyses the motor nerves of the voluntary muscles by exciting them to too energetic action, a paralysis which may be compared to that caused by powerful electric currents acting upon the nerves. In frogs, when the tetanic spasms are over, the nerves often show no trace of excitability; in mammalia they generally retain it in a slight degree, but never show the same energy of action as when uninjured.

3. Strychnia does not affect the sensory nerves.

4. The heart is not affected by strychnia, not even during the tetanic spasms, with the exception only that its pulsations are sometimes a little slower during the tetanic state. On the contrary, the lymph-hearts of frogs contract themselves as soon as the tetanus begins, and remain in this state as long as the spasms last.

5. The tetanic fits can be brought on in two ways: first, through the sensory nerves, which, by irritating the grey substance of the spinal cord, produce the tetanic contractions as reflex movements; and, secondly, through the brain, which is not affected at all by strychnia and preserves its powers of volition and sensation. Accordingly, animals poisoned with strychnia try to move in the ordinary way, but every attempt brings on a tetanic fit, so that it is plain that the spinal cord may also be excited by the brain to its peculiar actions.

6. If the tetanus produced by strychnia has been strong, the muscles are less irritable and pass much sooner into the state of cadaveric rigidity, which is very strongly marked, and seems to last longer than it generally does. The same early onset of rigidity may be observed in animals killed by tetanus excited by electricity.

OF THE AUTOPLASTIC
NEW METHOD FOR THE
TREATMENT OF FALSE JOINTS.

By JOSEPH JORDAN, Esq.

[Translated from the French, by W. H. BELLOT, F.R.C.S.E., Surgeon to the Stockport Infirmary, who was present at the Lecture.]

Professor Nèlaton had spoken to his clinical class of a new method of treating false joints, or ununited fractures.

Mr. Jordan, Surgeon of the Manchester Royal Infirmary, is the inventor of this method, and he has taken advantage of his sojourn in Paris to propose to M. Nèlaton the application of this happy invention. Mr. Jordan has already been able to obtain a cure in a desperate case, treated in vain by many other surgeons. Observe, in a few words, in what this method consists. In the first place, the bone must be uncovered, as in the cases where it is intended to practise the resection of the two ununited fragments. When the bones are reached, a vertical incision must be made upon the periosteum, commencing higher or lower upon the shaft of the bone, and terminating where the fracture ends. Each fragment is treated alike; the periosteum is dissected from every part, that is to say, separated from the bone. This dissection ought to be made with the handle of the scalpel, and by little blows; it is a little tedious, but we must not employ the blade of a bistoury, because then we infallibly cut the vessels of the periosteum, which often perforate at the same time this nourishing membrane, and thus expose us to fail in our object. We must not forget that, when there is a diseased condition in a bone, as in a false joint, the periosteum is thickened, more turgid, more vascular, and more easily separated from the osseous substance. After this dissection, a kind of periostic flap is left, like the sleeves of our coats or our shirts. For the other fragment a similar operation must be performed, taking care to push the dissection to a rather less extent. Secondly, the ends of the broken bones must be cut off, and here the same instruments are employed as in an ordinary resection—the saw, etc. Every portion of bone which is covered with bony stalactites ought, as much as possible, to be removed; and it is known that these stalactites appear precisely at the point where the periosteum has been destroyed or altered from the injury, at the time of the fracture in general. One centimetre (which is not half-an-inch) and a half, or two centimetres of each fragment, ought to be cut off. Thirdly, one of the ends of the bone is to be inserted into the periostic sheath of the other, and then a suture at the free extremity of the flap, and the periosteum is disposed in such a way as the union of the bones allows. The edges of the incisions of the soft parts are then brought together, the limb supported in a suitable dressing, and the operation is completed as in an ordinary case.

In the case where a complete dissection of all the periosteum cannot be made, Mr. Jordan has proposed another plan. In this case the bone is denuded of two little periostic flaps, which answer to the little flaps of skin in the amputation of M. Senoir; the other fragment is denuded upon the side opposed to that of the first fragment. In the second place, the two fragments must be cut diamond-shaped; there are thus, as it were, two beaks of a flute opposed one to the other; they are faced (or, as we should say, dovetailed together), and they fold the periosteum all round. It is evident that this last proceeding gives the same result as the preceding one; it would, perhaps, be more difficult to maintain the ends of the bones in immediate contact.

Does not this proceeding offer something new? Authors, or rather Surgeons, have employed friction, needles, the seton, the ligature, resection, abrasion, scraping the ends of the bones, and lastly cauterization. White and other surgeons have spoken well of scraping the periosteum, but they have not formed a clear idea upon the point. Have they shown, what Mr. Jordan has truly made a happy invention, and which may admit of numerous applications, that is, the autoplastic plan applied to the periosteum? When we reflect that we often see in the Hospitals patients having pseudarthrosis, undergoing a great number of surgical operations, without any benefit, we ought to hail with delight a plan which is based upon sound physiological data, and upon a clinical fact, followed by success. Finally, we must not omit to say that Professor Nèlaton has accorded it his approbation, and that it was with great regret that he was not able to employ it upon the patient with respect to whom he had shown to his auditory the plan of Mr. Jordan.

August 22, 1856.

Selections from Foreign Journals.

ON STERILITY IN RELATION TO THE VAGINAL SECRETIONS.

By Dr. KUCHENMEISTER.

Scanzoni, Tyler Smith, and others have shown, that while the mucus of the vagina is acid that of the cervix uteri is alkaline. If we compare these observations with those made by Moleschott and Kölliker on the movements of spermatozoa in diluted alkaline fluids, we must perceive that these spermatozoa find a very favourable soil in the cervix uteri or the

uterus itself, and a highly unfavourable one amidst the acid mucus of the vagina. One of the causes of sterility has long been known to be the deviation of the os uteri from the axis of the pelvis, the semen being unable to enter at once into the cervix. We can expect in such cases few living spermatozoa to reach the os by the laws of capillarity, and none at all if the vaginal secretions are very acid. That motionless spermatozoa will not fructify is well known; but whether motionless spermatozoa brought by capillary action into contact with the uterus are susceptible of being revivified by means of its alkaline mucus, is a point we are unable to reply to, though the probability is that they are not. Scanzoni and Kölliker have further shown, that when the vaginal discharge is abundant the acid reaction is increased and irritation extends to the outer edges and commencement of the cervix of the uterus, and the alkaline mucus then becomes converted into neutral—such neutral condition being a more unfavourable condition for the rituality of the spermatozoa than the alkaline condition of the secretion. Another point in relation to sterility is the complete temporary and periodical closure of the os uteri, shown by Kölliker and Scanzoni to take place. In the ordinary state of things, when no abnormal irritation or secretion of the canal of the cervix is present, this canal is closed from one menstrual period to another by means of mucus, either in the form of an arterial plug or of a drop projecting from the external os. About the menstrual period, however, the secretory power of the canal is aroused, the plug is cast out, and the passage becomes free. In most women this issue of the cervical mucus continues for a short time after menstruation, when the canal again becomes closed: and we see the importance of this in relation to the advice often usefully given to sterile women to admit of coitus just before or just after the period.

In treating a patient for sterility, the Practitioner should first of all make an examination with the speculum, to ascertain if any abnormal position or physical obstacle exists, and whether this last depends upon atresia, or plugging of the canal with mucus. He must repeat his examination at the menstrual periods, to ascertain when this plug becomes loosened and the canal free, and how long a time elapses after the period before it becomes again closed. Thus, suppose the plug is only separated during or soon after the period, having connexion just prior to it will be of no avail. As the introduction of the semen into the uterus shortly before the occurrence of the period seems to favour impregnation, the canal of the cervix should be cleared out a day or two before this time, and coition then accomplished. In obstinate cases the Practitioner, or a midwife acquainted with the use of the speculum, should clean out the cervical canal, by means of a pencil of charpie, and then inject a solution of basic phosphates of soda, or the alkaline carbonates, in the proportions employed by Moleschott and Kölliker, in their experiments upon the spermatozoa. Coitus should take place as soon after as possible. In many cases, the injection of the alkalies would suffice for rendering the canal free. In the most obstinate cases, where much depends upon the removal of the sterility, and when the canal first opens at the middle of the period, or towards its end, coitus should be recommended during the period itself, when, therapeutically and physiologically speaking, the canal is more certainly open, when the spermatozoa can most easily gain admission to the uterine cavity, when the ova have descended into it, and when the salts of the serum of the menstrual blood may confer upon the spermatozoa a more active and more prolonged vivacity.—*Wien Wochenschrift*, No. VI.

ON CHLOROFORM IN LABOUR,

By Professor SCANZONI.

1. *In Normal Labour.*—Notwithstanding the flattering accounts from Britain, Professor Scanzoni has found so many disadvantages result from its use, that he is averse to the employment of chloroform in entirely natural labour. The uterine contractions are at all events temporarily diminished in both force and frequency, while the adjuvatory action of the abdominal muscles is weakened. Lying-in women require much larger doses to induce narcosis than others, apparently because the inspiration is often interrupted by the pains, while the entire nervous system is more blunted, as is seen from the feeble action of other medicinal agents, as opium, etc. Perhaps, too, the more watery state of the blood, admits, as in the chlorotic or hysterical, of an increased employment of these. This diminished sensibility explains the harmlessness of the means, and the fact that no death has hitherto been recorded, consequent upon its obstetrical application. Nor are the after consequences, such as delirium, headache, convulsions, etc., that so often occur under other circumstances, met with here. On the other hand, however, chloroform imparts a decided inclination to hæmorrhage during or after the fifth stage of labour, against which, the administration of ergot, shortly prior to the expulsion of the child, does not offer any certain security.

2. *In Abnormal Labour.*—(*a*) In too precipitate labours, the chloroform is well suited to effect a decided weakening and delay of the pains. (*b*) In spasmodic pains, when the patient suffers much from their severity, and is very restless, and when warm applications, opium, or venesection have been employed in vain, chloroform is indicated. (*c*) In spastic stricture of the os uteri, chloroform always leads to a relaxation of the tense, unyielding edges; but as such spastic contractions are known to be conjoined with relaxation of the body and fundus of the organ, we should not continue its use too long (at most half-an-hour), and should try other means before resorting to it at all. As soon as the strictured condition is relieved, also, we must endeavour to induce strong labour-pains by means of warm injections, &c. Stricture, occurring during the last stage of labour is easily subdued by chloroform, but here it must be very carefully employed, in consequence of the danger of hæmorrhage. (*d*) In tetanus of the uterus chloroform is always admissible and useful, and its employment much facilitates turning, so often required in these cases—these tetanic spasms usually only occurring when some mechanical impediment irritates the uterus into increased action. (*e*) In threatened abortion, the author has found chloroform very useful in calming pains that menaced this occurrence. (*f*) In eclampsia, Professor S. has employed it 8 times, and has arrived at the conviction, that, if not infallible, it is one of the most certain means of subduing the attacks. Sometimes it is difficult to effect the narcosis, but this can always be done by perseverance. When the disease is obstinate and long, and the inhalations have to be often repeated, these are best employed on the very first appearance of each attack. (*g*) In excessively severe pains, whatever may be their cause, chloroform does good service. (*h*) In afterpains it is also to be recommended. In a case, however, that occurred to M. Scanzoni, the child, put to the breast three hours after the mother had been narcotized, fell into a deep sleep that lasted 8 hours, and caused uneasiness respecting it for two days after.

3. *In Obstetrical Operations.*—Here the chloroform is always indicated, and so great are its advantages that it is incredible that several practitioners still neglect its employment. In pelvic presentations it should not be resorted to, as the delay of the labour that may follow might prove dangerous to the child.—*Monatsch. fur Geburts.* Band VI., p. 461.

GENERAL CORRESPONDENCE.

TARTAR EMETIC IN CROUP.

[To the Editor of the Medical Times and Gazette.]

Sir,—As one of those who may be said to have followed in the wake of Dr. Elliotson, I must trouble you to insert an answer to Mr. Kesteven's letter of the 23rd ult. I have read with care Mr. Kesteven's papers on the "Diagnosis and Treatment of Croup," and find a very sufficient reason for his preferring ipecacuanha and my preferring tartar emetic, in the indications he lays down for treatment. They are,—1st. To overcome the spasm. 2nd. To arrest inflammation. 3rd. To promote the removal of morbid products; and lastly. To support the powers of the constitution. It appears to me that Mr. Kesteven has somewhat inverted the order of these indications. Assuredly, the exciting cause of the spasm is either the inflammation, the pseudomembrane, or both combined; and this being admitted, the first indication for treatment will be to arrest inflammation, and to dislodge any morbid product that may have been formed. With these the spasm takes its departure, "sublatâ causâ tollitur effectus." If, in the earlier stage of the disease, the spasm be so great and prolonged as to threaten death by asphyxia, tracheotomy is the most trustworthy and legitimate remedy. In such a case I would not

trust to any medicinal agent whatever; but I feel compelled to state that, though I have been present at some deaths in consequence of croup, I have never seen, nor, on inquiry of those present at the time of death, have I ever heard of a case in which spasm terminated the patient's sufferings. In those cases, whether seen by or reported to me, the little sufferer retained full consciousness to within a very short time before death; irregular inspirations, the intervals between them becoming longer and longer until the last occurred, unattended by either spasm or convulsion, constituted the symptoms immediately preceding death.

If we admit that the first indications for treatment are the subjugation of inflammation, and the removal of morbid products, I cannot see, nor will I believe, upon a vague reference to twenty or fifteen years' experience, that, in the treatment of croup, ipecacuanha can be safely substituted for tartar emetic. To tell me that alarming depression may come on during the administration of tartar emetic, is merely a truism; depression to the extent needful in inflammatory croup is attainable only by this tabooed agent or bloodletting. If Mr. Kesteven remarked that bleeding a child to death was injudicious treatment for croup, I could not gainsay him. The scalpel that lays bare the carotid for deligation might be drawn across that very useful blood-vessel, with results not calculated to prolong life; but it is for the wielder of the weapon to see that no such untoward result takes place; nor does it militate against its usefulness if the operator bungle. In the paper upon the treatment of croup, Mr. Kesteven quotes Dr. Cheyne as advocating the use of ipecacuanha primarily, and tartar emetic if the disease did not yield. Surely, if Mr. Kesteven's ideas be correct, this is more radically wrong than treating it with tartar emetic from the outset; for, if it be inadmissible in the active stage of croup, with what disastrous results must not its administration in the later and more depressed stage be attended?

M. Guersant's opinion, that the unsatisfactory result of tracheotomy is caused by the debilitating effects of previous treatment, is also quoted; but, on the other hand, Trousseau, no mean authority on this point, attributes such a result to the fact that the operation is too long delayed. Stokes and Porter mention pneumonia as the lethal complication in such cases; while, to take other authors *en masse*, tracheotomy is now generally believed to be useless when the membrane has extended to, or near to, the bifurcation of the trachea. The previous treatment may, in a degree, contribute to the bad result; but time, and the extension of the membrane, are the essential elements in the matter.

I need not refer to the other means Mr. Kesteven thinks it necessary to mention, at any length. Having strangled the exciting causes, *i. e.*, the inflammatory action, nature will deftly accomplish the rest of the work; and instead of calomel, or Dr. H. Green's probing, I would ask for wine, strong beef-tea, and milk. I must not omit to state that air laden and warmed with steam, as advised by Dr. Golding Bird, is a most valuable adjuvant.

I find in the paper upon diagnosis that one of the deductions Mr. Kesteven makes, is that croup is readily distinguishable from laryngismus. Now, if he mean to say that no man of average capacity can go on treating laryngismus as croup, he and I quite agree; but if his meaning be, that in the paroxysm of laryngeal spasm there is any well-marked diagnostic symptom, I must put in a protest against the assertion. Let us take Dr. Barlow's statement of the differential diagnosis, which is as follows:—"It may, in fact, be distinguished from true croup by the age of the patient, generally from nine to fifteen months, but never, according to Dr. Clarke, beyond the expiration of the third year of the patient's life; whereas, the true croup is the more common after that age. By the history of the case, and condition of the patient, generally presenting some cause of nervous irritation, as teething, gastric irritation, enlarged glands in the neck, strumous diathesis, or a large or ill-formed head; by the suddenness of the attack, and by its sudden departure; and by the absence of fever, cough, and dyspnœa, in the intervals between the paroxysms."

Now a child *may* have true croup before it is a year old; a child suffering from teething, gastric irritation, enlarged glands in the neck, strumous diathesis or even the further aggravation of a large and ugly head, may have true croup. The onset of true croup may be sudden, and the first spasm, especially among the poor, generally takes the mother by surprise. For the suddenness of departure and the absence of fever, cough, and dyspnœa, in the intervals between the paroxysms, they can be of little value in primary diagnosis, simply because such a desirable condition is yet to come.

I must state, in justice to Mr. Kesteven, that the feature by which he believes laryngismus may be readily distinguished from true croup, is, that in the first, the dyspnœa and crowing sound accompany inspiration only; while in the second, the harsh, rough, sawing noises and dyspnœa attend both inspiration and expiration.

Had this difference, at once so simple and valuable, escaped my notice alone, I should merely have attributed it to defective observation; but in a manual published six years after Mr. Kesteven's paper, and by so accurate an observer as Dr. Barlow, I should certainly have expected that it would have been put prominently forward, if it was of any practical value, or did in fact exist at all. On the subject of laryngismus, I may add, that it will frequently happen that every child of a family is subject to it, and when the mother states that all her family are subject to croup, one may with considerable certainty predicate, that laryngismus is the affection in question. I have never seen a child die of laryngismus, and I should be glad to hear Mr. Kesteven's experience on this point.

Dr. Elliotson, in a back number of your Journal, states, that, in an apparently hopeless case of croup, a child aged fourteen months recovered, having taken twenty-seven grains of tartar emetic in three days. Some little time afterwards, he gave it as his opinion, in a court of justice, that a man died of the combined effect of a shower-bath and one grain and a-half of tartar emetic. The man was a lunatic aged 65, the bath of great volume, and continued during the space of half an hour, and finally no evidences of organic disease were discovered at the autopsy. From these premises, an ingenious correspondent deduces that, according to Dr. Elliotson, one grain and a-half of tartar emetic half kills a strong man, while twenty-seven grains in three days saves the life of a child fourteen months old! He naïvely calls this, a "reductio ad absurdum," and in sooth so it is, but the absurdity is all his own. Mr. Prior, moreover, says something sonorous about the landmarks of medicine, which irresistibly reminds me of the landmarks Molière lays down for the cure of all diseases, "Clysterium donare, postea seignare, ensuita purgare."

Permit me to point out to this gentleman, and I assure him I do so with the deepest sympathy for the before-mentioned landmarks, that I, the least heroic exhibitor of "one of the most potent of sedative poisons," prove also least successful in practice. I may add, too, that it is singular, though not on that account inconsistent with Mr. Prior's letter, that in substituting ipecacuanha for tartar emetic in the treatment of croup, he is heterodox, while I, who have been so recently introduced to the landmarks, am orthodox, at least as far as the remedy employed. For the verification of this rather alarming fact, I refer him to the literature of croup; and with many apologies for occupying so much of your valuable space,

I am, &c, E. W. Sullivan, M.D.

Ilford, August 25, 1856.

MR. GRIFFIN AND THE POOR-LAW UNION SURGEONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I shall feel obliged by your inserting the accompanying letter, which points out the necessity of Union Medical Officers organizing to effect melioration of their condition. I intend very shortly to publish a list of all the Unions, designating the part each has taken in the present movement, and will thank gentlemen to forward me their subscriptions immediately, in order that their names may appear in the forthcoming list. Officers connected with 374 Unions have joined the Association, and I have ascertained that 264 petitions have been sent to Parliament, and a like number to the Poor-law Board. I have little doubt others have done the same, but have omitted to reply to my letters requesting the information, which I regret exceedingly, as it is most desirable to keep a correct list for future proceedings.

I am, &c. Richard Griffin.

12, Royal-terrace, Weymouth,
Sept. 6, 1856.

Kingston, Canada West, July 14, 1856.

Dear Sir,—Too long have the various branches of the Me-

dical Profession been separated by small and paltry bickerings among themselves; the time has at last arrived, I trust, when we shall all see that union is the only mode by which we can resist the encroachments daily made on our brethren.

I therefore hail with pleasure the efforts you are making in behalf of an important number of the Profession, and your endeavours to maintain and raise the position of Medical men.

The good or injury of one is, in various ways, felt by all; and, although many circumstances have tended heretofore to divide the Military from the Civil branches, it is time that we should now strive for the good of all, each in his own sphere maintaining the respect and position due to the importance of his duties in alleviating human woe.

Feeling deeply the present position of the Poor-law Medical Officers—a feeling that I am aware is largely partaken of by my military friends, permit me to offer my humble support towards the expenses which you must necessarily incur in forwarding the noble object you have in view. Wishing you every success, permit me to subscribe myself,

Your sincere well-wisher,

Robt. Thornton, Surgeon, 9th Regt.

I enclose a cheque for £1 : 1s.

Richard Griffin, Esq.

REPORTS OF SOCIETIES.

CRIMEAN MEDICAL AND SURGICAL SOCIETY.

March 20, 1856.

Dr. Williams, Vice-President, in the Chair.

The twelfth ordinary meeting was held this day. The proceedings of the last meeting were read.

Surgeon Thornton, 9th Regiment, then read a paper on excisions, a subject he said of deep importance to us all, not only from the extent to which the principles of Conservative Surgery have been carried during the war, and the benefits that this class of operation has conferred on mankind; but also from the success that has generally attended our efforts in these cases, which must be a source of sincere gratification to ourselves, both individually and as a body, and tend to reflect credit on British Military Surgery. He would now read a few cases bearing on the subject of excisions that had occurred in his own practice, and some that had been kindly supplied to him by others. He did so in the hope that the other members would also tell what success had attended their efforts, and gain, if possible, some more adherents to the cause of Conservative Surgery. He trusted they would excuse his appending any lengthened remarks to the cases, as it was not so much to give his own, as to hear the opinions of others, that he came before them, and to promote the objects of the Society, by introducing a subject of discussion that is so interesting to us all; as we may any day, whether in peace or in war, be called on to prove our practice, and we ought to be able do so with benefit to those entrusted to our care. He expected from the discussion that would take place, that we should carry away with us the sound practical experience of many whom he saw present, and who had had more opportunities than himself of developing this branch of the Profession, and prove to all that this Society (in the success of which we feel deeply interested) was a real benefit, not only to ourselves, but also to those committed to our charge; affording, as it did, an opportunity for promulgating our views, and thus tending by the accumulation of facts to the production of an improved practice. Those who had heard the discussions on the various subjects that have already been brought before this Society, must have been struck by the sound practical views that have been expressed, and the observations made on the influence that climate has over disease, founded on the experience of our members during their residence in various parts of the world; for there are few portions of the globe where we shall not find that some one amongst us have been.

The first case he would bring before their notice was one of excision of the shoulder-joint of private T—— R——, 9th Regiment, aged 25 years, who was wounded on the 4th July, 1855, whilst in the trenches before Sebastopol (left attack), by a shell which wounded five men; a large splinter of the shell struck him on the left shoulder, fracturing in its course the acromion, coracoid, and a large portion of the spinous process of the scapula, it also fractured the neck and glenoid articulation of the left scapula, breaking them into small pieces; the humerus was fractured in a longitudinal direction for about three inches from its head, through the head, the fracture being also comminuted—there was some slight venous hæmorrhage. On the following morning, having determined on excising the fractured portions of bone, chloroform was administered. He then, Dr. Taylor kindly assisting him, passed the catlin through the wound, and with one sweep of the knife laid the wound open behind, from the shoulder to the axilla, then dissected out the fractured end of the humerus and sawed off the jagged end of the lower portion. The upper fragments were then removed and the head of the humerus disarticulated, and all loose portions of the scapula removed: the edges of this extensive wound were brought and retained by sutures; there was only a slight oozing of blood from the divided muscles; no ligatures were required. On the 8th of July the wound appeared to be healing very favourably, and his general health continued good. On the 9th an erysipelatous blush appeared round the shoulder, but the wound was discharging healthily. His strength was supported by wine, porter, etc., and a simple dressing of lint, wetted with a weak solution of chloride of sodium, applied in order to remove smell, and keep off the flies, which were a perfect plague in our Hospitals at this season. On the 10th the erysipelatous blush extended round the wound. The sutures were removed and a linseed meal and charcoal poultice applied; however, gangrene set in, he sank rapidly and died the following morning. It is of importance to remark, with reference to this case, that on the night of the 8th of July a regular sirocco set in, which continued for three days; with its advent all the wounds then in Hospital took on an unhealthy character, and although no other casualty took place it tended materially to delay the recovery of the other patients. The question may, perhaps, arise,—Was this a case in which Conservative Surgery was advisable, and whether it might not have been better to have removed the limb from the shoulder-joint? He must state that he was still of opinion that the best course was pursued under the circumstances, for there was this very important fact in favour of its success, that the vessels and nerves had escaped intact, and that there was a fair reason to hope that the reparative efforts of nature would be successful. The unsuccessful termination of the case he considered as owing to the peculiar climative cause already referred to, producing unhealthy action in a very extensive wound.

(To be continued.)

CORONER'S INQUEST.—VERDICT OF MANSLAUGHTER.

On Monday evening, an inquest, which was adjourned, and lasted until five p.m. the following day, was held at the Harbour Inn, before J. E. Sparrowe, Esq., on the body of Mary Ann, the wife of William Jeckells, sail-maker, of this town, who died on the 29th ult., after having been delivered, by a Mr. Matcham, of a seven months' child, on the 22nd ult.

William Jeckells, of Lowestoft, sail-maker, deposed as follows:—The deceased was my wife; we had been married ten years, and had five children living. My wife was confined last Friday week (22nd August). I applied to Mr. Alfred Matcham to attend her during her confinement. She was taken ill on the previous Tuesday evening, and I went for Mr. Matcham. He is a man-midwife. On Thursday, the 21st of August, my wife was taken ill in labour; Mr. Matcham came in the evening, and was with her all night and the following morning, and at five in the afternoon of Friday she was delivered of a male child. My wife died last Friday, the 29th of August. Before the birth of the child, I mentioned to Mr. Matcham that I was very uneasy in my mind at the sufferings of my wife, and I wished to have some one called in. He said "There was no occasion for anything of the sort, for all was going on right." On last Thursday morning, I again stated to Mr. Matcham that I wished to have some other Doctor in. He then said "things were going on well." I went for Mr. Worthington, who was not at home, and I went a second time, and he soon after came and saw my wife,

but I did not see him. I saw Mr. Matcham, and told him I had been for Mr. Worthington, and he said "it was dirty treatment to do so, and that I ought to have given him his discharge that morning."

Cross-examined by Mr. Matcham:—I went to your house on Thursday morning about six o'clock; you were not up. I returned home, and went again about nine o'clock, when you returned with me.

Hannah, the wife of Edward Rising, of Lowestoft, wood-turner, deposed—I was called in by Mr. Jeckells last Wednesday week to assist his wife, who he said he thought was in labour. I went to the house about half-past ten at night. I saw Mrs. Jeckells in bed. I conversed with her for some time, and left about twelve o'clock. I had been home some little time, when he came again and said his wife was very bad, and I got up and went to her house directly. I found her very bad, and there was a great deal of water in the bed. I did not leave her that night, nor during the following day, except for a short interval, until the child was born on Friday evening about five. As soon as I found that her pains were coming on I sent for Mr. Matcham on Thursday morning. He came and attended to Mrs. Jeckells, who suffered much. Her pains were long continued but short, and not enough to do her any good. On Friday afternoon, the delivery not having taken place, Mr. Matcham used some instruments, which, as I had never seen before, I cannot describe, but should know them again. I cannot speak as to what extent of force was used by Mr. Matcham. The child was born about five or half-past five on the Friday morning. Mrs. Jeckells survived till the Friday following, when she died about half-past eight p.m. The deceased had been in a weak, low state of body for some time before her labour. She complained of suffering from inflammation of the kidneys and of the body, and that she had not been well from the first of her being pregnant. I have attended a great many women in child-bed as a friend. I asked Mr. Matcham if he would have any other person called in, as Mr. Jeckells wished it, but he said, "No, there was no occasion for it." This was said on Thursday, the day before the birth. I thought Mr. Matcham applied skill in his manner of managing the delivery up to the time of his using instruments, which, as I never saw one before, I cannot speak to. Mr. Matcham had used the forceps and also a table-spoon of the common size, and after that, or at that time, the child was born. I attended Mrs. Jeckells once before in her confinement, with Mr Cleveland. She told me this last child was a seven-months' child. The child is living now, and was born uninjured, except a slight bruise on the head; there was a slight mark of the spoon on the head. The spoon being used by Mr. Matcham slipped twice, and on each occasion he waited a quarter of an hour or so for the return of the pains. We were all exhausted during the labour in holding the deceased. Once, when the instruments used slipped, she called out and said they nipped her and hurt her. The instrument slipped twice, and when the spoon was used the child was born. The instruments now produced by Mr. Matcham are those he used at the time. There was very little hæmorrhage after the birth, and nothing before but a great deal of water, which broke before Mr. Matcham came. Mrs. Jeckells, after her delivery, was as well, up to the Sunday, as could be expected; but on the day before her death, between nine and ten in the morning, she complained of her inside being bad, and was a little sick. On the Saturday after the birth I saw Mr. Matcham, who said "Mrs. Jeckells was going on well," and I thought so too.

Susannah Prime, the wife of John Prime, of Lowestoft, sailmaker, deposed: I was well acquainted with Mrs. Jeckells, and lived near her. I was with her during her confinement, and attended her from the Thursday before her delivery. She had pains at intervals of a quarter of an hour or twenty minutes. I was there all Thursday night, and on Friday afternoon she was delivered of her child. For what I know, Mr. Matcham conducted the case as well as he could. He appeared to show great attention and care, but I did not understand it. On Friday afternoon Mr. Matcham applied the instruments, and the child was born by means of an instrument and a spoon. There was not much hæmorrhage after the birth. She complained very much about the instruments being used, called out and said, "You hurt me very much." I went home after the birth, and returned to her on Saturday morning. I thought she looked rather better; but she told me she was not. I saw her on Saturday and on Sunday; she was very weak, and on the latter day she appeared worse. I saw Mr. Matcham there both on Saturday and on Sunday. During the labour the instruments were put on and slipped; the second time they slipped; the third time, an instrument and spoon were used, and that application was effectual, and the child was born. The two unsuccessful applications were attended with much pain and agony to the deceased. She said to Mr. Matcham, "You appear as if you were pulling me to pieces." Mrs. Jeckells did not, in my hearing, request Mr. Matcham to use the instruments; if she had I must have heard her. Mr. Matcham told her he could not deliver the child without the instruments. She did not appear to consent to or resist their being used. I have attended women in child-birth before, but not in any case where instruments were used. I was in front of Mrs. Jeckell's during the whole time of her delivery, so that I could hear anything she said. The instruments were used during the labour pains and not between them. Mr. Matcham did not draw off the water before using the instruments. He more than once, during the labour and before the birth of the child, said—"She was doing very well, and that he saw no danger." After the birth I did not hear him express any opinion. When Mr. Matcham was using the instruments, the second time I think, his knee slipped off the bed from the jerk—that was the time when the deceased called out "you are pulling me to pieces." I went down stairs twice while the instruments were being used—once to see the time, and the second time for the spoon. I cannot recollect whether I went down stairs before the instruments were used. Some tea was given to the deceased, with a powder, before the instruments were used; Mr. Jeckells' mother brought the cup, and Mrs. Rising and Mr. Matcham mixed it. When the instruments were used the deceased called out—"Oh, Sir, you hurt me"—this was the first time of using them. I thought the labour-pains were not strong enough to bring the child into the world. There was no injury to the child, excepting a few marks on the head, but no abrasion of the skin. The deceased had gone only seven months of her time.

Mr. W. C. Worthington, Surgeon, deposed as follows: I was called in to the deceased by Mr. Jeckells last Thursday, in the latter part of the afternoon. I found her suffering acute pain in the abdomen, which was swollen and tender to the touch; she had a small rapid pulse; diarrhœa, which she described to have been going on three or four days; and her vital powers altogether in a sunken state. I considered her position a very alarming one, and that she was in a sinking state. On inquiry into her case I found she had been delivered of a seven months' child by Mr. Matcham. I was also informed that it had been an instrumental case; that it had been a case of considerable difficulty. I was led to make an examination of the vagina. In conducting that examination, although I did it very cautiously, she complained of great pain, which led me to desist immediately. I then prescribed for her, and gave such directions as I thought necessary, and continued to visit her several times until her death, which took place on Friday evening. Last evening I made a post-mortem examination of the body, aided by Dr. Webb, and in the presence of Mr. George Cleveland. On examining the external organs of generation the parts were swollen and discoloured, and showed marks of subcutaneous extravasation. On the right side of the genital fissure I observed a wound about an inch in length, and the left side slightly abraded; that on the right side extended a little way into the perinæum. I then proceeded carefully to remove the uterus, with its appendages, from the body, together with the bladder and rectum. I then slit up the rectum to the orifice of the anus; the orifice of the anus was a good deal congested, but otherwise the mucous surface of the rectum presented nothing remarkable. I then slit up the uterus on the posterior part, commencing at the fundus, and carried the incision carefully down to the orifice of the vagina. On the right side of the vagina was a wound about two inches in length, extending upwards and backwards, which appeared to be a continuation of the wound observed on the outside; it had penetrated the walls of the vagina, extending to the cellular tissue. On the left side, just at the entrance of the vagina, was also another wound, about three-quarters of an inch in length, but more superficial than the one just described. The neck of the uterus presented nothing remarkable. On examining the cavity, I found it more bulky than usual; in fact, it was imperfectly contracted, and

towards its fundus was a fragment of the placenta, adherent to the uterus, about the size of my three fingers, which looked as if the other portion had been torn off. The inner surface of the uterus presented nothing remarkable. I then examined the bladder and the urinary canal; the lining membrane was a little more congested, redder than usual, and the rest of the abdominal viscera appeared quite healthy. In the absence of any inflammation about the bowels or of the peritonæum, I cannot account for death from any other cause than the injuries observed about the genital organs and about the vagina, accelerated by diarrhœa, and, probably, hæmorrhage. I am not prepared to say that these injuries were sufficient to cause the death of the patient, but I do not think the patient would have died had it not been for those injuries. I don't think the diarrhœa or hæmorrhage would have destroyed her. I think that those injuries of the vagina displayed a want of skill and care in the operation; for I cannot conceive that a skilful use of such instruments as were used in this case, could have caused the injuries I have described. I have not known the use of a spoon before under such circumstances with a seven months' child. It is very unusual to use the forceps with a seven months' child, unless there was malformation of the pelvis or hæmorrhage. We always apply the instruments between the intervals of pain, and not during the labour pains. I should think it much more probable that the injuries I have described were occasioned by the use of the spoon rather than of the forceps produced, as the latter are more rounded and polished and not so sharp as the edges of the spoon. With a seven months' child and a well-formed pelvis, as in this case, I should think the child might have been delivered in about ten minutes, if the head was sufficiently low in the pelvis, as I presume it was. I think it was unnecessary to apply the forceps at all to a seven months' child, unless there was extensive hæmorrhage or any other urgent cause. I cannot state positively whether, from the weak state of the patient, it was advisable to use the instruments. I do not think there was any urgent necessity for them. The wounds were not superficial—only one of them. The wounds were not the immediate cause of death; the patient would not have sunk so rapidly had it not been for the diarrhœa and hæmorrhage. I think from what I had seen of the napkins the day of her death there had been a very considerable hæmorrhage after the birth, and which probably continued to her death. As far as I can judge from the statements of the witnesses, I should not have thought it advisable to have the instrument applied, considering the formation of the head and the dimensions of the pelvis.

W. W. Webb, M.D., and Lecturer on Anatomy at the Grosvenor-place School of Medicine, being sworn, stated as follows:—I reside in Lowestoft, but am not now in practice. I assisted Mr. Worthington in the post-mortem examination last night, and took notes of the appearances observed. These appearances were accurately described by Mr. Worthington, and in very moderate language. I may say that I observed appearances of injury to the passages, which, from the account of the labour given by the witnesses, must have been the result of violence applied from without, and were of such a nature and extent as not to admit of the patient's recovery. I have heard no other cause assigned for these injuries than the use of the instruments mentioned by the other witnesses. I know of no other cause of death than the injuries described by Mr. Worthington. I think that the diarrhœa and other symptoms were the consequences of such extensive injuries. The application of instruments would not have been my treatment in such a case as this.

Alfred Matcham, of Lowestoft, not having been sworn, made the following statement:—I have practised in this town as a Surgeon for some years, and I have a diploma from the college at New York, as a Surgeon and Student under Dr. James, a Physician, and residing now in New York. I was called in to see Mrs. Jeckells six months ago. I cannot speak to the date unless I had my book here. I found her suffering from violent pains in the back, bladder and thighs. There was also an extraordinary quantity of portery-coloured urine voided at one time, a considerable quantity of mucus as from an ulcer. I treated her for an affection of the kidneys, from which she has recovered some time. On the 17th of June, she was again taken with violent pains as before. Her mother was sent for, as her life was not expected.

Coroner: This is a history of the case, and not connected with the inquiry before us.

Mr. Matcham thought it necessary for the jury to know, in order that they might better understand the case.

Mr. Matcham proceeded—She continued some time—a fortnight or three weeks, but has never been properly well since. She was always complaining of pain, and had more than once intimated her opinion that she should not recover from her confinement. Her pains changed into distinct labour pains on Thursday morning, at thirty minutes past one—the Thursday morning spoken to by the witnesses. I was sent for at 1.30 a.m. I examined the vagina, and found the mouth of the womb but slightly dilated. I remained with her until six o'clock the same morning. I returned home, and was called again at eight a.m. I was told her pains were much quicker. I found on my arrival the pains the same as when I left her. I remained with her till two o'clock. The pains were not sufficient to justify my interference. I left her at intervals of half-an-hour, or an hour, just to get my meals, and returned to her. Nothing occurred to justify interference until the afternoon of Friday, when I found the pulse sinking and the patient much exhausted. I then deemed it advisable to use my forceps, as the pains were not sufficient to expel the fœtus. I fixed the forceps in the absence of a pain, and co-operated with nature in effecting delivery. The external parts were much swollen, rendering it difficult to lock the instrument. From Mrs. Jeckells' twisting in bed, the instruments slipped off from the head of the child. I immediately put the instruments away, and tried to alter the position of the child with a spoon, not having the lever with me which is usually used for such purposes. The child was shortly afterwards delivered. I bound the woman's body up, as is usual, and moved her into the next room. I have omitted to state that I had removed the afterbirth in about five minutes after, and examined it, and, so far as I could tell, it was perfect. I examined the uterus, and found a considerable quantity of extravasated blood. I used friction over the external region of the womb, bandaged the body and left her. She was carried by three persons into the next room, I saw her again in the evening, when she thanked me for my kind attention to her. She complained of violent pains in the region of the kidneys—precisely the same kind of pain she had complained of for months. I examined the body externally, and found it soft and free from inflammation. I continued to visit her twice and three times a day until Tuesday. I found her progressing favourably. On Thursday morning, I found her suffering from violent retching and purging. I examined the fæcal matter that passed from the intestines — it was watery. I enquired as to the hæmorrhage. I found it was not excessive, and was healthy in appearance. She complained of violent pain in the region of the abdomen. I called again in the afternoon—Mr. Worthington had been called in, so I abandoned the case, and saw no more of it. I have attended nearly two hundred cases of midwifery in this town, and have occasionally used instruments before without accidents of any kind. I should observe, that the reason I did not draw off the water from the bladder was, that it had been emptied previously to my coming, and was, in fact, quite empty when I attempted to use the instruments. I have always regarded Mrs. Jeckells as suffering from an ulcerated womb. I have nothing further to add.

The Coroner then proceeded to call the attention of the jury to the evidence, which he read over *seriatim*. He remarked that it must have struck them that Mrs. Rising was not a very willing witness. The question the jury had to decide was a very important one—whether this poor woman's death was attributable to the circumstances which had been stated, and if so, was there any criminal feature in the case. As far as regards Mr. Matcham's personal attention and trouble, corroborated as it was by the witnesses, there could be no doubt. They would have to decide whether she had been sacrificed by gross ignorance and criminal mismanagement of the case. Unless they were satisfied that there was any criminal charge against Mr. Matcham, *the circumstance of his not being a qualified man was of no consequence in a case of that kind*. It was only in the absence of skill and proper attention that they could bring a criminal charge against the party implicated. Unless they were satisfied that there had been gross ignorance and mismanagement—culpable, almost making it wilful, they would not be justified in returning a verdict against Mr. Matcham. The Coroner then proceeded to cite

several decisions upon similar cases, after which he observed that he was bound to tell them that there was not, in his opinion, any proof whatever that Mr. Matcham had shown that gross ignorance, considered necessary by all the Judges he had referred to, to exist, before a verdict of manslaughter could be returned. Mr. Matcham had practised successfully, which gave another feature to the case. But presuming them to be of opinion that there was gross ignorance, another question would be, whether it was criminal, and there was but little to show that. He regretted that Mr. Matcham practised without being qualified, as he was thereby subjecting himself to action and penalty. They had a right to presume that Mr. Matcham had received an education under a professed Medical gentleman. (a) If they should be of opinion that he had exhibited gross ignorance, they would be justified in coming to the conclusion of manslaughter. If they should consider there was mismanagement and force more than was necessary —and both the Medical gentlemen agree that they should not in such a case have used instruments at all—it was for them to discharge their duty impartially, and give a verdict which, he had no doubt, would be satisfactory to the country.

The jury, after consulting about half-an-hour, returned, through their foreman, the following as their verdict:—"We are of opinion that the death of Mary Ann Jeckells was caused by gross ignorance and unskilful treatment on the part of Alfred Matcham."

Coroner:—Then, Mr. Roberts, you must take Mr. Matcham into custody.

The several parties were then bound over to appear at Bury Assizes.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of Medicine, and received certificates to practise, on Thursday, September 4, 1856:—

Bradshaw, Alexander Frederick.
Carnley, Henry, Hull.
Carver, Eustace John, Melbourn, Cambridge.
Daniel, William James, Beaminster, Dorset.
Dunne, Frederick William, Islington.
Hodgson, William Joseph, Snaith, Yorkshire.
Pryce, Charles, Bayswater.
Rayner, Thomas, Manchester.

DEATHS.

Aitken.—Sept. 2, after a severe and protracted illness, David Aitken, Esq., of St. Paul's terrace, Islington, late of Kingsland, aged 73. Retired from practice. L.R.C.S. Edin. 1806; formerly Surgeon for ten years H.E.I.C. Service.

Sheppard.—On September 2, at the early age of 39, James Sheppard, Esq., M.D. and justice of the peace for the county of Devon, at his residence, Buckingham-place, Stonehouse. Evincing and advocating a liberal and gentlemanly feeling among the members of his Profession, he was universally esteemed by the Medical men of the neighbourhood in which he lived; while, by his contributions to Medical science, he acquired more than a local reputation. Of a kind heart and highly gifted mind, he always strove to be useful to the afflicted, and to lighten the burdens of the labouring classes. His name, though not clothed with the prestige of a Metropolitan reputation, will long live in the memories of those who, in the privacy of domestic life, will always attribute their welfare to his watchful energy and skill in the exercise of an arduous Profession. His death is thus spoken of by a local paper:—"By this unexpected event society has been deprived of an ornament, and the inhabitants of Stonehouse in particular have sustained a loss which will be much felt and deeply deplored. Of pure morals, and genuine but unobtrusive piety, nature had endowed him with varied mental powers, which, in his professional writings developed views at once original and well supported. Amiable and dignified in his manner, his skill and kindness of heart converted his patients into obliged and affectionate friends, who feel in his death a well-nigh irreparable loss. As a citizen, his far-seeing and generous mind urged him amid the foremost ranks of an enlarged and philanthropic liberalism, where his graceful amenity conciliated his opponents and divested opposition of its rancour. An active magistrate, he tempered justice with mercy. Accessible to all classes on all occasions, the earnest interest he evinced in every public or private benefit he could procure, may in some measure explain the general shock and sorrow which was felt throughout Stonehouse at the news of his untimely end. A large number of the tradesmen have shown their esteem for his memory by partly closing their shops."

(a) Why had the Jury a right to *presume* any such thing?—Ed. *M. T. and G.*

APPOINTMENTS.

Dr. Robert D. Lyons, late Pathologist-in-Chief to the British Army in the Crimea, and author of the valuable report on the Pathology of the Diseases of the Army of the East, has been appointed Professor of the Theory and Practice of Medicine in the Catholic University, Dublin.

St. Marylebone General Dispensary.—At a general meeting of the Governors, held on Thursday, September 4, Mr. W. H. Flower was elected to the office of surgeon, in the place of Mr. Nunn, resigned.

The sixth and last section of the Irish Census Report has just appeared in the form of a voluminous blue-book It contains a variety of tables relating to emigration, immigration, the army, agricultural statistics, etc., in the sister isle, occupying above 700 folio pages, These returns relate chiefly to the condition of Ireland in 1851—being, indeed. ostensibly founded upon the Census papers prepared and collected in that year, under the superintendence of Mr. M. Donelly, the registrar-general. The most striking fact, however, recorded in the document is presented in a preliminary table, wherein the Registrar-General brings down his estimate of Irish population to the most recent period, arriving at the conclusion that the number of dwellers in Ireland has regularly gone on diminishing year after year, and is now at least half a million less than when the Census was taken on the 30th of March, 1851. Although famine and distress have disappeared, and the condition of the country become eminently prosperous, the population continues to dwindle under the influence of a strong and unchecked tide of emigration. Every year the estimated number of births has preponderated over that of deaths by more than sixty thousand on the average; but the increase arising from this natural cause has been far more than counter-balanced by the outflow of population to the United States, to Canada, and to Australia. On this point, Mr. Donelly has compiled the following table:—

	Years.	Excess of Births.	Emigration.	Decrease of Population.
Mareh 30,	1851	49,319	179,507	130,188
Jan. 1,	1852	64,453	190,322	125,869
,,	1853	63,189	173,148	109,959
,,	1854	62,085	140,555	78,470
,,	1855	61,298	91,914	30,616

University of London.—The next examination for the degree of Bachelor of Medicine will commence on the 3rd of November, and that for the degree of Doctor of Medicine on the 24th of November.

Old Age.—Two women died last week, at the age of 92 years, 2 women at 93, a man at 93, and a woman of more extraordinary longevity is stated to have attained the age of 106 years. She died in the Marylebone Workhouse on the 31st August, and Mr. Joseph, who registered her death, was informed that she had been there 34 years, and that her son is now living, who is 84 years old. She had been formerly cook in a nobleman's family.

Mortality Notabilia.—Eleven hundred deaths were registered in London in the week that ended on Saturday. The deaths of males were 552, those of females 548. As regards the total number, the present return differs little from those of the two previous weeks; and if the mortality produced by epidemic cholera in 1849 and 1854 be excluded from the average of corresponding weeks in the years 1846—55, it will appear that the rate of mortality which now rules approximates to the average rate at this season.

Diarrhœa continuously decreases: the deaths from it in the week were 124, which is less than half of the number caused by this complaint about three weeks ago. Four deaths are

ORIGINAL LECTURES.

LECTURES
ON THE
VARIETIES OF CONTINUED FEVER AND THEIR DISCRIMINATION.

DELIVERED AT

St. Thomas's Hospital.

By THOMAS B. PEACOCK, M.D.,
Assistant-Physician to St. Thomas's Hospital, etc.

Lecture VI.

RELAPSING FEVER.

The remarks which I have now made, complete what I have to say in reference to the two most important forms of fever which commonly prevail in this country; but you will remember that I mentioned there was another form which was occasionally seen, and which also sometimes prevailed epidemically. To this the name of relapsing fever has been applied. The disease first attracted attention in Scotland, in 1843; it had doubtless previously appeared both there and in Ireland, and in this country also. At that time I had the opportunity of seeing many cases of the disease, but since it has only rarely fallen under my notice, though in 1847 it was somewhat prevalent in London. This disease, I have before mentioned, is characterized by the suddenness and severity with which it commences, the occurrenee of a more or less marked remission at from about the 5th to the 7th day, to be followed by a rapid convalescence, and a severe relapse from about the 14th to the 18th day; and, perhaps, even by one or more subsequent relapses, after more or less complete convalescence.

Patients affected with this disease are usually seized with rigors, and other symptoms of febrile disturbance. They complain of severe pains in the head, and general pains in the trunk and extremities. Frequently there is sickness and vomiting, and usually more or less jaundice. The skin is hot and dry, and the pulse quick. After these symptoms have continued from about 5 to 7 days, they begin to remit; the skin becomes moist, the pulse decreases in frequency, and the attack passes off with profuse perspiration, and the patient rapidly recovers strength. He is probably already able to leave his bed, when, usually about the 15th day from the commencement of the symptoms, he is again taken with severe rigors, the skin becomes hot and dry, the sickness and vomiting return, the jaundice recurs, and often becomes very intense, the pulse very quick, and the patient is again extremely prostrated; after a day or two the symptoms again remit, the skin becomes moist, and the most profuse perspirations often occur, continuing for hours and literally drenching the bedclothes. The pulse at the same time falls in frequency, even below the natural standard, and becomes very feeble: and the patient becomes excessively prostrated, but after a few days, again begins to recover his strength, but his convalescence is now much slower. At or about the 21st or 22nd day he may again relapse; or if not, his convalescence is usually much protracted. During the progress of the disease, the vomiting is sometimes very urgent, and the matters vomited are either of the green bilious hue or consist of dark coffee-grounds matter;—not unfrequently most profuse discharges of blood take place from the bowels or from the nose. If death occur, it is usually during the relapse, and is caused either by the profuse loss of blood; or from uræmic and bilious poisoning, from the suppression of urine and arrest of the functions of the liver; or by exhaustion. Two fatal cases of which I possess notes both died on the 14th day, and of profuse hæmorrhage with intense jaundice. During life we do not observe any specific eruption on the skin, though small petechial spots are of common occurrence; and, after death, there are no constant morbid conditions found in the body: the only appearance being usually of a negative character. Frequently, however, the mucous membrane of stomach or intestines is found much congested and infiltrated with blood, but the solitary and aggregate glands of the intestines are entirely free from disease. The liver is usually found natural in appearance; occasionally it is much congested. Generally the gall-bladder contains bile, and the ducts are pervious; but, on examining the ducts in the liver, they are found free from bile, indicating that the function of the liver had been arrested. The spleen is usually large and somewhat softened. The kidneys natural.

Though the features of this disease are generally well marked, there are differences in the frequency of the relapses. Dr. Craigie states that he found them occur in about three-fourths of his cases, while Dr. Cormack (a) met with them in almost all, and states that he has seen 3rd, 4th, or even 5th relapses. The different statements on this point may, however, be partly referable to the mildness or severity of the cases, and the periods during which the patients remain under treatment. In the milder cases, the first stage of the disease may escape notice, or the patient may be discharged from the hospital before the relapse. The period at which the relapse occurs may also vary. Of 6 cases of which I possess notes, in one the relapse took place on the 14th day, in two on the 16th, in two on the 18th, and in one on the 26th from seizure. In Dr. Cormack's cases, the periods varied from the 11th to the 25th day. Though my experience of this form of disease has not been extensive, I have seen cases bearing every resemblance to the relapsing fever in which no relapse occurred.

The relapsing fever differs from both those mentioned, not only in its general character, but also in its much less fatality; the rate of mortality in Edinburgh in 1843, not having exceeded 3 or 4 per cent. A striking feature of the disease is also its tendency to become complicated during convalescence with severe rheumatic pains in the limbs or trunk, or with ophthalmia; and, after the relapses, the convalescence is generally very protracted and a long period elapses before the patient's strength is re-established.

Differences of opinion have been entertained as to the relations which exist between this and the other forms of fever. Most observers—struck by the peculiar features of the disease, the suddenness and intensity of its attack, its short duration, rapid convalescence and frequent relapses; by the absence of the eruptions which characterize both typhus and typhoid, and of the intestinal lesion which is constantly found after death from the latter—have regarded the disease as specifically distinct from both. This inference is confirmed by the apparent diffusion of the disease by a specific contagion; for, during the epidemic of 1843, physicians, pupils, nurses, almost every one who was brought within its influence, were attacked by the disease. Dr. Alison also reports that a patient convalescent from severe typhus, being placed in a ward with patients in relapsing fever, took that disease in a characteristic form, thus apparently indicating the difference of the specific causes of the two diseases. I have also myself frequently seen that two or more cases of relapsing fever have appeared in the same family, and this is confirmed by Dr. Jenner. Dr. Cormack, however, to whom we owe an able monograph on this disease, mentions that one of his cases of relapsing fever displayed an eruption in the skin, precisely resembling that ordinarily seen in typhus.

The general characters of the relapsing fever are markedly contrasted with those of typhus, and, notwithstanding the case referred to, it is difficult to conceive the two diseases can be otherwise than distinct. To typhoid, however, the disease bears a much closer analogy, in the frequent occurrence of jaundice and the great tendency to relapse in typhoid. These resemblances are not, however, sufficient to prove the identity of the affections. The hepatic symptoms and the relapses in typhoid are probably accidental complications dependent on malarious influence, in the same way as other diseases may assume a periodic character from the same cause; and they certainly do not modify the characteristic intestinal affection. In relapsing fever, on the other hand, the constant absence of any lesion of the intestinal follicles forms a marked distinction from typhoid. Relapsing fever is, indeed, more probably allied to the remittent and yellow fevers of hot climates, and its occasional sporadic appearance in hot weather in this country is confirmatory of this supposition.

The following case affords a good example of the relapsing form of fever. For the notes of the case I am indebted to Mr. Lankester of Leicester, who was then my Clinical Clerk.

(a) Natural History, Pathology, and Treatment of the Epidemic Fever at present prevailing in Edinburgh and other towns, etc. 1843, pages 182.

Case 12th.—Ellen Murphy, aged 42, admitted into Ann's Ward, St. Thomas's Hospital, under my care on the 11th of November, 1850.

She has had good health until the last 3 years, during which time she says she has had three attacks of pleurisy, and is now generally subject to shortness of breath and cough; she has no regular occupation, and has been exposed to privation and exposure; has been in London only since April last.

She was as well as usual until five days ago, when she and her child were seized with shiverings, headache, and pains in the limbs, which have continued and rather increased up to the present time. The countenance is now somewhat jaundiced; the bowels have been much relaxed; there has been no vomiting; pulse about 140, regular, and rather feeble; skin hot and dry; tongue yellowish and furred; she coughs a good deal, but with little expectoration; the heart's action is exceedingly rapid, and the sounds indistinct; respiration hurried.

She was ordered, mist. pot. chlor. ʒi. tertiis horis sumend. Pul. diaph. gr. xij. horâ somni. Low diet.

Nov. 12th.—She has slept but little and her cough has been troublesome; expectorating some viscid mucus; skin hot and dry; tongue white and furred; pulse 140, small; bowels twice open.

13th.—Pulse between 140 and 150; tongue dryish, morbidly red, with some white fur; decided jaundiced tinge on the countenance and conjunctivæ; no eruption; some general tenderness of the abdomen, perhaps more marked in the region of the liver; cough troublesome, with spumous expectoration; general sonorous rhonchus with the inspiration, especially behind; bowels relieved two or three times in the course of the day.

Adde cuique dosi misturæ ʒi. tinct. cinchon co. Hydr. c. cretâ gr. iv. pulv. Doveri gr. iv. bis die. A sinapism to be applied between the shoulders.

14th.—Much improved; the face less jaundiced; pulse 96, soft; tongue white; skin moist; cough less troublesome to-day.

15th.—Not much alteration; pulse 94; tongue white, moist; she is perspiring freely; breathing tolerably easy; bowels open.

16th.—Tongue dryish, with ragged white fur towards the base; pulse 80, quiet; eyes still a little jaundiced and skin slightly tinged; bowels relieved twice daily.

To have beef-tea, and ʒiij. of wine.

19th.—Going on well; has no cough and sleeps well; skin warm and moist; pulse 92, soft; face quite free from the jaundiced tinge; tongue white and coated, red at the tip and edges.

20th.—She is steadily improving; pulse 100, quiet; tongue red at the tip with dingish white fur; there has been no eruption on the skin.

22nd.—She is now suffering from a return of the febrile symptoms, which commenced on the evening of the 20th; the face is much flushed and there has been severe headache which is now lessened; pulse 140, and rather sharp; skin hot and dry; had a good deal of shivering for about half an hour this morning; the bowels are rather relaxed; urine scanty, high coloured and depositing a sediment; tongue dry with brown coat in the centre, and red margins; she complains of much pain in the limbs and joints, and she is thirsty.

23rd.—There is some appearance of depression, and the eyes are pale and glassy; pulse 145; tongue dry, and brown fur in the centre; bowels twice relieved to-day; there is no material splenic enlargement; complains of general febrile restlessness, soreness and thirst, and especially of pain in the epigastrium; she has been hawking up some bile.

℞ Hyd. c. cretâ gr. iv. pulv. Dover gr. v. quâque nocte sumenda.

℞ Quinæ sulph. gr. ij. Mist. menthæ sulph. ʒj. tinct. camph. co. tertiis horis.

25th.—She is looking much better to-day; pulse 96, quiet; tongue dry, morbidly red and chapped; conjunctivæ a little tinged; she has perspired profusely during the night, but without rigors; bowels relieved two or three times yesterday; no appetite.

27th.—She is looking better; tongue moist; morbidly red; pulse 96, quiet; conjunctivæ still a little tinged; bowels moved two or three times a-day; no return of rigors or fever.

Dec. 4th.—She is now very much better and has been up for the first time to-day.

To have meat allowed her.

14th.—She was discharged to-day, on the 33rd from admission and the 38th from the period of her seizure.

In this case it will be observed that the patient was admitted on the 5th day of illness, a child also having been attacked at the same time. The first symptoms were very severe; she had slight jaundice, with pains in the limbs, bronchitis, etc., a marked improvement in the symptoms occurred on the 8th day, and a severe relapse ensued on the 14th day; the severe symptoms continued to the 17th; a slighter relapse occurred on the 18th day, and convalescence was fully established on the 27th from the period of seizure, and she was discharged cured on the 38th day.

Ephemera or Febricula.—The only other form of fever to which I have now to allude is that to which the term Febricula or Ephemera has been applied. The cases which have been classed under this head probably embrace a variety of different affections. Some are, probably, cases of imperfectly developed typhus, typhoid, or eruptive fever; others may be cases of relapsing fever, in which the relapse does not occur; and yet others may depend on common causes—exposure to cold or damp, noxious miasms; or on gastric, intestinal or hepatic disorder. I should rather regard the so-called ephemeral fevers as abortive attacks of one or other of these forms of diseases, than as possessing a specific character of their own. You will constantly find, that when a series of cases occurs in members of the same family some are characteristic attacks of typhus or typhoid, others are only slight febrile symptoms, to which we may apply the terms Febricula or Ephemera. Thus, in the three cases of typhus which I have before referred to as examples of contagion, and of the varieties in the form of the eruptions on the skin, the first two, those of the patient and the first nurse, were examples of characteristic and severe typhus; the third case, or that of the second nurse affected, was merely a slight febrile attack in which no eruption appeared on the skin. Again: among the typhoid cases is included one which presented the characteristic features of the disease during life, and proved fatal and after death extensive intestinal disease was found. The brother of this boy was under treatment at the same time, and in his case the fever was only slight; and numerous similar examples might be quoted. We see facts precisely analogous during epidemics of the eruptive fevers, and especially of scarlatina.

LECTURES
ON
GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.,
Lecturer on General Natural History at the Government School of Mines and Fullerian Professor of Physiology, Royal Institution.

LECTURE VIII.

The name *Turbellaria* has been assigned to a group of worms, for the most part the inhabitants of fresh or salt waters, though a few live in damp situations on land, which are most obviously characterized by the ciliation of the entire surface of their body. In their internal organization, they approximate in many respects to the *Trematoda*, while in others they exhibit a certain affinity with the other great group of parasitic *Annuloida*, the *Nematoidea*. Some Turbellaria possess, while others are devoid of, an anus; and hence they have been divided into the two primary groups of *Proctucha* and *Aprocta*; the latter are usually short, broad, flattened and hermaphrodite, while the *Proctucha* are, on the other hand, generally very long and narrow, and are unisexual.

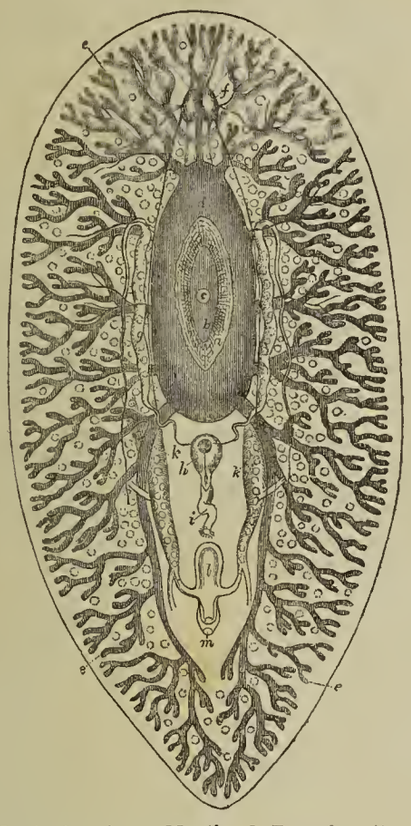
The form of the alimentary canal affords a means of further subdividing the *Aprocta* into two minor groups; in the one of which, the *Dendrocœla*, it is ramified; while in the other, the *Rhabdocœla*, it is a straight undivided cœcum.

Polycelis lævigatus (Fig. 1), one of the *Dendrocœla* so well described by De Quatrefages in his Monograph on the marine *Planariæ*, may be advantageously selected for study as a type of its group.

It is a broad, flattened worm about ¾ of an inch in length, presenting an oval brownish patch in the middle of the body,

anterior to which is on each side an aggregation of dark eyespots. The elongated aperture of the mouth is situated upon the under surface of the body, at the distance of about one third of the whole length from the anterior extremity. It leads into a wide chamber in which lies a muscular proboscis, attached to the roof of the containing cavity but free

Fig. 1.



Polycelis (after Quatrefages).—*a*. Mouth. *b*. Buccal cavity. *c*. Œsophageal orifice. *d*. Stomach. *e*. Ramifications of gastric cœca. *f*. Ganglia. *g*. Testes. *h*. Vesicula seminalis. *i*. Male genital canal and penis. *k*. Oviducts. *l*. Spermathecal dilatation at their junction. *m*. Vulva.

everywhere else. By the contractions of the walls of the chamber, the proboscis can be extruded from the oral aperture. The œsophageal canal traverses the proboscis and opens into a small gastric cavity, situated over its point of attachment, from whence a single trunk is given off in the median line anteriorly, and many at the sides. All these trunks divide and subdivide, eventually terminating in cœca at the margin of the body.

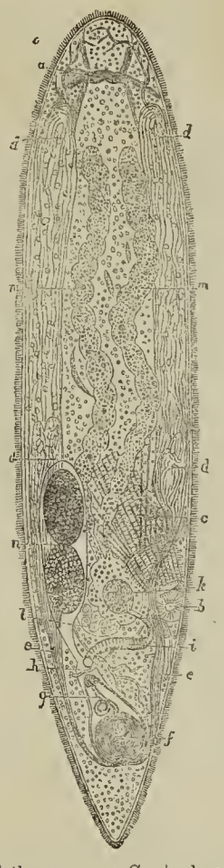
The ramifications of the alimentary canal have distinct walls, and are suspended within a perivisceral cavity containing a fluid which, in some species of *Eolidicera*, is corpusculated, and De Quatrefages, in drawing attention to the fact, points out the incorrectness of the term "parenchymatous" (or "Sterelminthous"), as applied to these creatures. The walls of the terminal cœca are thickened and granular, and possibly play the part of a hepatic apparatus.

Behind the centre of the body, two apertures are situated at a considerable distance from one another, in the middle line of the ventral face. The anterior of these belongs to the male apparatus, and leads into a narrow canal, in which the penis lies. This is a conical organ, with an enlarged base, containing a dilatation, which serves as a vesicula seminalis, and receives two narrow vasa deferentia; and these, according to De Quatrefages, gradually widen as they pass backwards into the testes, which are tubes bent upon themselves, and narrowing to their posterior extremities. In the fresh water *Planariæ*, however, and in those marine forms with a common genital aperture, according to Schulze (Zoologische Skizzen. Zeitschrift für Wiss. Zoologie, 1853), the testes are vesicles scattered throughout the body, the tubular organs full of spermatozoa, which correspond with the "testes," described by Quatrefages, being merely the vasa deferentia—and this structure accords with that which has already been described as probably obtaining in the *Tæniadæ*.

The posterior aperture is the vulva, connected with which is a cylindrical vagina, terminating posteriorly in a dilatation, which serves as a spermatheca. The oviducts open upon each side into the vagina, and dividing into two branches, an anterior and a posterior, they gradually widen, and cease to be further traceable. De Quatrefages was unable to discover any distinct ovarium in *Polycelis*, the ova appearing to be developed in the interspaces between the branches of the alimentary canal; but Schulze, in the *Dendrocœla* which he examined, found two distinct ovaria situated between the ganglia and the pharynx, which sent ducts back on each side of the latter organ, to open into a space in front of the penis. Into this, the yelk granules, prepared by two branched vitellaria, and during copulation the spermatozoa also—are poured. The spermatozoa in *Planaria torva* are packed in chitinous spermatophores.

The nervous system consists of two principal ganglia *(f)* placed in the anterior portion of the body, and more or less closely united together, from whence two large cords, which run backwards, are given off, besides a number of smaller filaments. The organs of sense, which have been observed, are the eyespots, masses of pigment, which, in some species, are provided with spheroidal lenses, and supplied by a nerve; and, in *Monocelis*, an auditory sac with a single otolithe. The vascular system, which Duges ascribed to the *Planariæ*, appears to have consisted merely of the lacunæ, which surround the nervous ganglia, and their principal trunks; to which, perhaps, the oviducts must be added. De Quatrefages was unable to discover any vascular system in the marine *Dendrocœla;* but Schulze has distinctly observed the two principal lateral trunks of a ciliated water-vascular system, opening close to the posterior extremity of the body by a common non-contractile aperture; from the trunks minor ramifications are given off in the ordinary manner.

Fig. 2.



Opisthomum.—*a*. Central nervous system. Ramifications of the water-vessels are seen close by it. *b*. Mouth. *c*. Pharynx. *d*. Testes. *e*. Vasa deferentia. *f*. Vesicula seminalis. *g*. Penis. *h*. Sexual aperture. *i*. Vagina. *k*. Spermatheca. *l*. Ovarium. *m*. Vitellarium. *n*. Uterus with two ova, inclosed within their hard shells. (After Schulze.)

The development of the marine *Dendrocœla* is not fully understood, but it would appear from Müller's observation that the embryos become ciliated larvæ, in some respects similar to those of the Echinoderms. In those fresh-water *Dendrocœla*, distinguished from the majority of the marine forms by the common opening of their male and female apparatus, and constituting the true *Planariæ*, the process of development, as described by Von Siebold, is very singular. The large ova at first contain a quantity of vitelline cells, containing an albuminous and finely granular mass, in which a nucleolated nucleus lies. The membrane of the cells is highly contractile, and their contents are driven about by its peristaltic movements. After a while, these movements cease, the cell-membrane disappears, and a number of vitelline cells fusing together into masses, or islands of yelk, investing themselves with a ciliated epithelium, and, developing a muscular pharyngeal proboscis, become embryos. These embryos no longer increase by the direct coalescence of the vitelline cells, but what remain of these are swallowed and assimilated. A number of embryos are thus developed in each ovum, and gradually assume the form of the adult. Their size on leaving the egg depends, of course, upon the number which have been developed, and this varies considerably. It would be satisfactory to learn something more about the original composition of the ovum, as Von Siebold states he has never been able to discover the germinal vesicle and spot; but, as the facts stand, this mode of development would seem to be comparable only to that observed in *Purpura* by Dr. Carpenter.

In the organization of their alimentary apparatus, the *Rhabdocœla* (Fig. 2.), in all essential respects, resemble the *Dendrocœla*, but the intestine is a straight cœcum, and the mouth

may occupy almost any position from the anterior to the posterior extremity of the ventral surface. The reproductive organs are also very similar. The testis has the form of two wide tubes, and the penis resembles that of the *Trematoda* and *Tæniadæ* in being eversible, and covered with spines.

In the female organs of all the *Rhabdocœla*, except *Macrostomum*, the vitellarium is completely separated from the ovarium. The latter is either a double or a single sac, containing pale, transparent, cell-like ova, each with its germinal vesicle and spot, of which those nearest the cœcal end of the ovarium are the smallest. The vitellaria are always double, and have the form of long, simple, or branched tubules, containing vitelline cells, and free granules. The vitellaria and the ovaria open into a common oviducal and uterine canal, which is connected with the spermatheca, and in which the shelly covering of the egg is produced.

The nervous system consists of two ganglia, united together, and situated at the anterior extremity of the body. From each of these, three branches are given off in *Opisthomum pallidum* (Fig. 2). The eye-spots and auditory organs, when present, are constructed on the same plan as those of the *Dendrocœla*.

There is a well-developed water-vascular system in the *Rhabdocœla*, consisting of one or two lateral trunks, which open by a terminal pore or by lateral pores, and give off many ramifications. They are not contractile, but their inner surface is abundantly ciliated. De Quatrefages states, that in a *Derostomum* he has seen two lateral vessels, and a single median one, disposed like those of the *Nemertidæ*.

The *Rhabdocœla* are not known to undergo any metamorphosis. In *Vortex Balticus*, Schulze observed that each egg contained two germinal vesicles and gave rise to two embryos —an interesting approximation to the mode of development of *Planaria*.

Both the Dendrocœle and the Rhabdocœle *Turbellaria* are remarkable for their powers of reparation, and, in some cases, of fissive multiplication. The latter are particularly marked in the genus *Catenula*, in which zooids produced in this manner swim about united in chains.

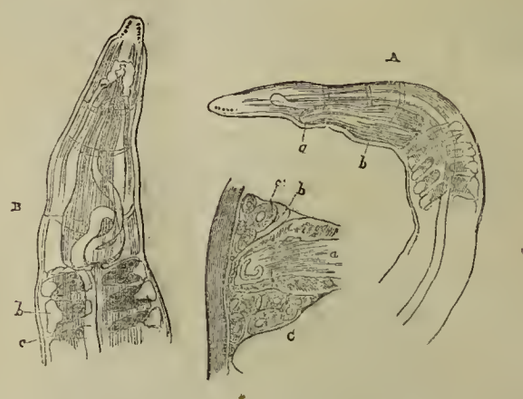
The *Proctucha*, or *Turbellaria* provided with an anus, are separated into two groups, according as they possess, or are deprived of, an eversible proboscis, distinct from the pharynx. The latter group, or *Arhynchia*, consisting of the genera *Microstomum* and *Dinophilus*, afford an easy transition from the *Rhabdocœla* to the *Nemertidæ* or *Rhynchocœla*, which constitute the former, possessing as they do the same general form, and reproductive organs constructed upon a similar plan to those of the *Rhabdocœla*; while, on the other hand, they are, like the *Nemertidæ*, unisexual, and possess an anal aperture.

The *Nemertidæ* are slender vermiform animals, the larger forms of which are usually found coiled up and apparently knotted together under stones between tide-marks. Some species attain enormous dimensions; *Borlasia Angliæ*, according to De Quatrefages, ordinarily attaining a length of 8—15 feet, while one specimen reached 35—40 feet. The extreme extensibility and contractility of the tissues of the *Nemertidæ* render it very difficult, however, to say what are their proper dimensions. By gentle traction, they may be pulled out to a great length and fineness; while, on the other hand, if immersed in spirit, they will contract to a tenth of their length, increasing proportionally in thickness.

The integument of the *Nemertidæ* is ciliated over its whole surface; but on each side of the anterior extremity there is, in many species, a fossa in which the cilia are longer and more close set.

The structure of the alimentary organs in the *Nemertidæ* has been a matter of some dispute. In *Cerebratulus*, I find that the mouth is an oval aperture, placed immediately behind the anterior extremity of the body, on the ventral surface. It opens into a pharynx, with longitudinally plaited or rugose walls, which gradually widens posteriorly, and then becomes very suddenly constricted, so as to present a broad truncated base posteriorly, communicating by a narrow neck with the intestine. The pharyngeal sac is somewhat constricted, and its folds gathered in about the oral aperture during life; but, when the animal dies, the mouth opens widely, and is nearly circular. The intestine takes a straight course to the posterior extremity of the body, and here terminates in the anal aperture. In the dorsal and ventral median lines, its walls are straight, but at the sides it is produced into sacculations, with thin edges, which are attached by transverse mesenteric septa to the parietes.

Fig. 3.



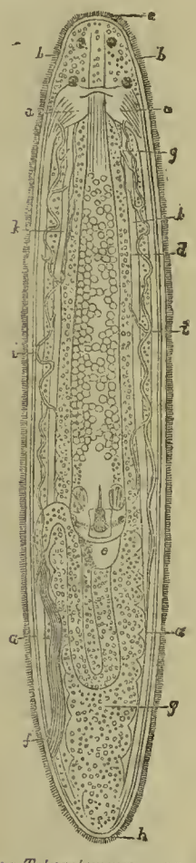
Cerebratulus.—A. View of anterior extremity from one side. *a*. Mouth. *b*. Pharynx. B. View from above, exhibiting the cerebral ganglia, the proboscis, the mesenteries (*c*) and the spaces in which the genitalia are contained (*b*). C. Longitudinal section left side. *a*. Cavity of intestinal cœca. *b*. Ovaria. *c*. Ova.

The inner surface of the intestine is ciliated, and, in favourable specimens, the contained matters, such as the Gregarina in Figure 3, could be traced from the central part of the alimentary canal to the cavities of the sacculi, and *vice versâ*. The proboscis lies above the alimentary canal, and passes out by its proper aperture, which is altogether anterior to, and independent of, that of the mouth. In *Borlasia*, the disposition and structure of the alimentary canal are essentially the same; and, in consequence of the larger size of the animal, the true structure of the alimentary canal can be readily demonstrated by dissection. As Von Siebold, Frey and Leuckart, and Schulze have all taken a similar view of the structure of the alimentary canal in the *Nemertidæ*, I feel justified in concluding, that the alimentary canal in these animals differs in no essential respect from that of an ordinary Annelid, notwithstanding the divergence of their views from those put forward by De Quatrefages in his well-known Monograph. The proboscis is a very remarkable organ, consisting of a narrow muscular tube, extending through the greater part of the length of the body, to whose parietes the posterior end is fixed by a muscular band (Fig. 4. *e*). The contractions of the walls of the body acting upon the perivisceral fluid and accompanied by a relaxation of the terminal muscle, evert the tube in much the same way as the tubular proboscis of *Tetrarhynchus* is everted; the contraction of the terminal muscle, on the contrary, aided by the relaxation of the walls of the body, withdraws the proboscis, and these movements are effected with great force and rapidity. In *Cerebratulus* and *Borlasia* the inner walls of the proboscidean tube are unarmed and simply papillose; but in many other *Nemertidæ*, such as *Polia*, *Tetrastemma*, *Prorhynchus*, a formidable armature is developed, in the form of a sharp spine, which occupies the middle line of the proboscis; a couple or more of imperfect spines being developed in reserve on each side, apparently in readiness to take the place of the perfect one when worn or shed. The reproductive organs of the *Nemertidæ* are as simple as those of the *Annelida*, the ovaria or testes consisting of sacs which lie on each side, in the subdivisions of the perivisceral cavity, formed by their mesenteries and intestinal cœca (Fig. 3. B. *b*). The ova are developed as processes from the walls of the ovarian sacs (Fig. 3. C.); in these the germinal vesicle makes its appearance as a clear space, but I could find no germinal spot in the ova of *Borlasia*. The Spermatozoa in the males fill the cavities of the testicular sacs. On the ventral surface of *Borlasia*, a double series of clear spots are visible, which have been regarded as apertures for the exit of the generative products. On careful examination, however, I could only find that the pigment was absent, and that the longitudinal and transverse muscular fibres of the body-wall diverge at these spots, over which the integument was quite continuous. But even if no permanent apertures exist, it is obvious that these may be comparatively weak points which would readily give way on any pressure from within.

The nervous system of the *Nemertidæ* is constructed on a very similar plan to that of the other *Turbellaria*, consisting

of two large, anterior, more or less pyriform, ganglionic masses, from which two long cords, which traverse the body laterally, are given off. The ganglia are united by a large, transverse, commissural band below, and by a small one above, into a ring through which the proboscis passes. Nerves proceed from the ganglia to the anterior parts of the head, and to the eye-spots, and from the lateral trunks to the parietes of the body. Besides eyes similar to those of the other *Turbellaria*, the ciliated cephalic fossæ, which have been already mentioned, receive large nerves, and are probably organs of sense of the same order as the ciliated fossæ of *Lacinularia*.

Figs. 4 and 5.



Young Tetrastemma.—*aa.* Central ganglia of nervous system. *bb.* Ciliated fossæ. *c.* Aperture through which the proboscis is protruded. *d.* Anterior armed portion of proboscis. *e.* Posterior muscular part, fixed to the parietes at *f*. *g.* Intestine. *h.* Anal aperture. *i.* Water vessels. *k.* Rhythmically contracting vessels. (After Schulze.)

Anterior extremity of the everted proboscis of *Tetrastemma*, exhibiting the principal and the reserve stilets. (After Schulze).

The vascular system of the *Nemertidæ* has been investigated and figured by De Quatrefages, who finds in *Polia* and *Borlasia* three principal trunks, one medio-dorsal and two lateral, springing from a common point of union at the posterior extremity of the body, and running forwards to the head; here the median vessel divides, and the branches curving round the cerebral ganglia, unite with the lateral trunks, which are independently connected by passing into one another at the anterior extremity of the body. These vessels are contractile in their whole length, and the fluid which they contain is sometimes colourless, sometimes deep red, so that they appear to be perfectly analogous to the vessels of the pseudhæmal system of the *Annelida*. De Quatrefages was unable to discover any ramifications given off from these or any other system of vessels; nevertheless the interesting observations of Schulze have shown, that in *Tetrastemma*, which possesses two lateral contractile trunks, with colourless contents, there exist, in addition, extensively ramified, non-contractile, ciliated water-vessels, as in the other *Turbellaria*. The two openings of these vessels are placed in the middle of the body. Similar vessels appear to exist in *Prorhynchus stagnalis*, but no ciliated water-vessels have as yet been observed in other Nemertidæ.

The female *Nemertes* encloses her eggs in an albuminous sheath secreted around her own body, from whence she afterwards extricates herself, much in the manner of the Leech. Many ova are contained in the separate chambers of the sheath, whence M. Desor was led to suppose that the ova contained many yelks.

I have observed the male and female *Borlasia* intertwined and covering a mixed mass of spermatozoa and ova. The ova are surrounded by a thick coat of albumen through which the spermatozoa of the male could be seen making their way, as in the frog, to the vitelline membrane. I did not perceive any actual penetration, but the ova were little fitted for such observations.

The ova of some *Nemertidæ* undergo a curious kind of metamorphosis, which was first observed by Desor, and has been subsequently confirmed by Schulze. The embryo is at first a ciliated, non-contractile, oval body, exhibiting no structure but a semilunar, superficial cleft, provided with raised edges. After a time a small, actively-contractile, vermiform creature, resembling the parent, escapes from the interior of the larval form, which it leaves behind like a cast skin. The semilunar cleft becomes the mouth of the imago, and is the only part of the larva carried away. One cannot but be struck with the interesting correspondence between the mode of development of the Nemertid and that of *Monostomum mutabile*.

The integument, and even the deeper substance of many *Turbellaria*, contains either thread cells or minute filiform bodies, which appear to belong to the same group of organs; but are distinguished from the thread-cells by the absence of any thread, and by their ready diffusion when brought into contact with water. I have observed organs very similar to these last in the integument of *Phyllodoce*, *Protula*, and *Comatula*. In some *Turbellaria*, such as *Thysanozoon* and *Microstomum lineare*, thread-cells, similar in all essential respects to those of the *Cœlenterata* are said to occur.

The *Gordiacei*, perhaps, best enable us to connect the *Turbellaria* with the very puzzling group of the *Nematoidea*, and I the more willingly dwell upon them, as the structure of several species belonging to the two genera which compose the group, *Mermis* and *Gordius*, have recently been made the subject of two very beautiful and elaborate monographs by Meissner. (a) The *Gordiacei* are excessively elongated, thread-like worms, which, as Von Siebold discovered, partake both of the free habit of the *Nemertidæ*, and of the parasitic nature of the *Nematoidea*. The young *Mermis*, for instance, is parasitic upon insects, inhabiting the perivisceral cavity of the larva or of the imago. So long as it remains here it is entirely deprived of reproductive organs, and merely increases in size; but, at a certain period, it quits the body of its host, passing out between the segments, and makes its way to the earth, where it buries itself, casts its skin, the caudal extremity assuming a new form, and developes its reproductive organs; then, after laying or fecundating ova, it, in all probability, dies. The young *Mermis*, hatched from one of these ova, makes its way to the surface, and penetrates the body of an insect larva, here to nourish itself until it attains its full size, and is fit for the performance of the reproductive function.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ON NEUROSIS OF THE VAGUS,

AN IDIOPATHIC DISEASE.

By CHARLES J. SHEARMAN, A.B., M.D., F.C.S.,
Late House-Surgeon and Physician-Assistant to Westminster and University-College Hospitals.

Since 1849, my attention has been engaged by a class of cases which have presented symptoms of peculiar characters, and deranging both mental and bodily functions. The essential mental symptoms have been—depression of spirits, leading to a gloomy view of the position of the patient, everything in the world being against his comfort and happiness; his judgment so impaired as to be incapable of drawing, by any means, a correct conclusion from premises; so great vacillation of the mental faculties as to effectually prevent any plan devised from being pursued to a satisfactory result; impairment of memory; exaltation of imagination, and excessive deficiency in the acts of volition; a kind of dreamy *laissez faire* taking the place of the command which a healthy man feels he has over the circumstances of life.

The symptoms of bodily affection are those of lassitude and malaise, most marked in the morning, always less in the evening, and almost completely removed by indulgence in society; a feeling of exhaustion located at the epigastrium, relieved by outward pressure, the ingestion of food and exhibition of stimulants; frequently a sensation of gnawing, tearing, or indescribable uneasiness is added to this feeling of exhaustion; cough, without expectoration; yawning; sighing and nausea occurring between the meals, but never following them; palpitation on the least exertion or annoyance; vertigo, tinnitus aurium, and incomplete direction of muscular effort, with deficient muscular sense; constipation, and free urinary secretion, with dry skin. The whole of these symptoms observe a periodicity, sometimes tertian, at others quotidian; and, under both forms, the period of exacerbation is antimeridional, almost a perfect immunity existing each evening.

(a) Beiträge zur Anatomie und Physiologie von Mermis Albicans v. Zeitschrift für Wiss. Zoologie Bd. V. 1854, and Beiträge zur Anatomie und Physiologie des Gordiaceen. Ibid., Bd. VII., 1855.

The symptoms being those of derangements of the gastric, pulmonary and cerebral system, and from not being able to ascertain the existence in most of the cases of any cerebral, cardiac, pulmonary, pleural, or gastric structural disease, I was limited to one of two affections to account for them,—viz., disordered gastric secretion or some neurosis of the gastro-pulmonary nervous group. I could never ascertain the existence of the former, and I attributed, therefore, the affection to some disorder of the latter.

During the course of the cases, I found that the small quantity of food frequently indulged in, which was borne in such small quantities at first, was succeeded by a power of full repletion afterwards; the appetite became in many cases almost ravenous, and this led me to look for sugar in the urine. I found it, and subsequently found sugar in the cases of only recent origin. From palsy frequently succeeding hyperæsthesia of the nerves of sensation, and the vagus nerve being known to be chiefly an afferent nerve, I formed the conclusion that this disease, in its early stage, was one of the vagus nerve in some course of its tract, either centric, peripheral, or intermediate; of irritation in its early stages, of palsy succeeding that irritation, and designated it in my note-book "sinking dyspepsia," and treated it as I would have done neurosis of any other centripetal nerve, and with satisfactory results.

Bernard's discovery of the formation of sugar in the liver, and its passage into the urine, on irritation of the origins of the vagus nerve, also of the influence of irritation of the centric portion of the divided vagus in the production of saccharine urine, as corroborated by Pavy, have, I consider, decided the accuracy of the diagnosis, and enable me to raise hyperæsthesia of the vagus from the position of merely an attendant symptom of disease to that of an idiopathic affection.

The experiments of Magendie, Reid, Flourens-Legallois, and others—the cases recorded by Brodie, Romberg, James Johnson, Goelden, Gibb—the observations of Bernard, Barreswill, Lehmann, Schmidt, and Pavy, enable me to draw from sixty cases of this disease (of which twenty-two were unassociated with any other affection, and thirty-eight with various neuroses, cachæmic affections, etc.) the following conclusions, and which I can (I think safely) substantiate by cases to be detailed in this and subsequent papers:—

1. One of the functions of the vagus nerve is the communication to the sensorium of the condition of the stomach.

2. That two forms of neurosis of this nerve exist—one of hyperæsthesia, the other of anæsthesia.

3. Hyperæsthesia is attended by irritability of the stomach, increased feeling of necessity of respiration, altered reflex action of muscles of respiration, and of laryngeal function.

4. Anæsthesia is attended by Boulimia, and diminished necessity of respiration.

5. Both forms obey the ordinary laws of diseased action of centripetal nerves, and are amenable to the rational treatment of the same.

6. Both are attended by altered blood-formation, with its ordinary effects on the various organs of the body, and many by irradiated or reflex sensations (in the form of vertigo, tinnitus, deafness, neuralgia, dyspnœa, etc.), and reflected muscular actions, as epilepsy, catalepsy, various forms of spasm of bronchial tubes, intercostal muscles, hiccough (spasm of diaphragm), chlonic spasm of voluntary muscles, etc.

7. Both forms by saccharine urine.

8. That hyperæsthesia of the vagus induces disturbance chiefly of judgment, secondarily of memory, imagination, and the power of association of ideas.

The urine, in all the cases of neurosis of the vagi, is passed frequently and in small quantities; its amount in the twenty-four hours is rarely two quarts, but is increased by indulgence in malt liquors—is alkaline when voided, of a clear, pale, gooseberry-wine colour; no marked odour, excepting that of sugar; sp. gr. 1016 to 1030; acid fermentation not commencing under four or five days, when it becomes ropy, and filled with vegetable growths; after this passes off the usual alkaline fermentation ensues. The urea is not increased in amount relatively to the other solid contents, but diminished in proportion to the water; uric acid is diminished, also the alcoholic extracts relatively to the whole contents of the urine; its chief characters are alkalinity and saccharine condition.

In testing for sugar I have always removed the ammonia and rendered acid by hydrochloric acid, and used Trommer's test, or Barreswell's, and from time to time obtained an alcoholic extract, from which I have obtained the characteristic indication of sugar.

In March, 1854, a woman, aged 42, was struck over the left ear. Two days afterwards she felt extreme sinking sensation at the epigastrium; constant desire for food, the digestion of which produced flushing and swelling of the features, vertigo, tinnitus, great heat of the palms of the hands and the soles of the feet, and a sensation of formication over the whole of the body. These were followed in three days by severe tic of the same side, engaging the frontal, orbital, malar, inferior maxillar and cervical regions. Four days after the accession of the tic I saw her, and ordered quinine and aconite internally. These seemed to be of no use; and from swelling occurring under the lobe of the ear, I suspended that treatment, ordered leeches to the swelling, and, on its subsidence, gave quinine and arsenic. The epigastric symptoms first, the facial and cervical subsequently, yielded, and she rapidly recovered. Has had tic neither before nor since the blow.

A woman, in 1853, applied to me for relief for shingles. Some months before I saw her she fell with the right side of the head against a chest, and received the blow somewhere behind the ear. She thought nothing of it; but in a few weeks found herself suffering from all the symptoms I have described attending hyperæsthesia of vagus, and to this succeeded the shingles of the same side. She had the periodicity of symptoms and the mental affection well marked. She was relieved rapidly, and subsequently cured by argenti nitratis gr. ½, opii gr. ½, ext. anthemidis gr. iv. ter die; quinæ disulphatis gr. ij., acid. nitrici diluti ♏xx., aquæ fontanæ, ℥iss. ter die. In both cases the urine was saccharine, and possessed the other qualities described, all of which disappeared under the treatment.

In July, 1856, a young man, aged 18, applied to me for relief from epilepsy. Two years ago he was struck by a stone opposite the superior posterior angle of the parietal bone of the right side; lost some blood, but no other immediate injurious result seemed to follow; but he noticed that soon after the blow he passed much more urine than he had been accustomed, and passed it unconsciously in the bed; also he had all the symptoms of hyperæsthesia of the vagus, which have gradually passed into those of anæsthesia. During the last eighteen months he has had epileptic fits at intervals of seven or fourteen days, generally on the Saturday. He has now an enlarged thyroid body encroaching on the carotid region; saccharine alkaline urine, and still the vagus affection with diurnal exacerbation. Under nitrate of silver gr. ½, Indian hemp extract gr. ½, extract. anthemidis gr. iv., and quiniæ, his epigastric sensations are relieved, and the fits diminished in frequency, and the urine lessened in amount and in its saccharine character. He is still under treatment.

Mrs. H., ten years ago, fell down some stone-steps and cut the scalp at the back of the head, opposite the superior transverse ridge of the occipital bone. The wound was slight, and did well. After all immediate symptoms passed off, she noticed she passed a very large quantity of urine daily. She had no advice on this matter. About two months after the accident, had severe pain in the right hypochondriac region, vomiting, feverish condition of body, pain in the right supra-scapular, inter-scapular, and infra-spinal regions of back. Jaundice, loaded tongue, confined bowels, and urine colour of porter: was attended by Mr. I. ——, for inflammation of the liver; was salivated, purged, leeched, and recovered, while under this attack passed less water. Two years afterwards had a repetition of the attack with the same symptoms, followed by (apparently) an attack of gall-stones. Last Christmas (1855) had an attack (apparently) of gall-stone. During the last ten years has passed urine copiously, except when the attacks of liver affection supervened; and been troubled since the fall with the symptoms of irritation of the vagi.

Present condition.—Dry harsh skin, in other respects it is healthy. Tongue pale, flabby, marked by the teeth covered by white fur, thickly over the region of the papillæ circumvallatæ. No red edge or centre, gums easily bleed, no pain in the head, but constant tinnitus (the ears are healthy), dry cough, no disease of larynx, trachea, bronchi, lung, pleura or heart, never had hæmoptysis, gnawing, sinking feeling at epigastrium, relieved by frequent feeding, which followed by feelings of distension, no vomiting, no symptom of organic stomach disease, nor is there now any symptom of liver derangement, bowels confined, urine pale, sp. gr. 1018, 3 pints

passed daily, contains sugar in abundance. She has almost universal neuralgia, first engaging one group of nerves and then another.

She consulted me in July last, and now has lost almost all her symptoms of disease, including the saccharine character of the urine under the nitrate of silver. Opium and quinine in pill, and. 3j doses of liq. potassæ three times daily.

These cases illustrate the sequence of the symptoms of disease of the vagi on injury to the head. A case is recorded by Dr. Goolden (Lancet, 1854 : p. 656) in which saccharine urine followed a blow on the side of the head of a railway guard.

A man, aged 66 (whose urine I had repeatedly examined as a contrast to that of his wife, who had saccharine urine, and found to contain no sugar), had an attack of apoplexy on the night of the 4th of July, 1856. I did not see him till the 15th July, when he was suffering from right incomplete hemiplegia of both sensation and motion. He then had all the symptoms of anæsthesia of the vagus, with saccharine urine. The respirations seemed to be quite perfect; the two sides expanded equally and well; he had no congestion or emphysema of the lung, and he has since lost the sugar from the urine; the hemiplegia remains but is relieved; and he is gaining back the use of the side. No treatment but the ordinary one for hemiplegia was employed. Here it would seem that the apoplexy was the cause of the saccharine urine, and that the affection of the vagus was symptomatic; but the following was of apoplexy succeeding a beautifully marked case of irritation of the vagus, with reflex intercostal neuralgia.

Mrs. A., in 1852, was under my treatment for the epigastric and respiratory symptoms of irritation of the vagus, with intercostal neuralgia of the right side, the chief seat of pain being in front, in the line where the sternal branches terminate, and behind, in a line about two inches right of the spine, and extending down to the false ribs from the nucha; so that other than the intercostal nerves were engaged. She had saccharine urine, but no trace of any head-affection. She improved in all respects during the three months she was under treatment. She one day ate very heartily at dinner, was seized by apoplexy, and died. No post-mortem examination was allowed, but I obtained some of the urine passed very shortly before the attack, and there was no sugar in that. I am inclined to the opinion that the seat of irritation was transferred, from some cause or other, from the centres of the vagi to other part or parts of the cerebro-spinal axis, and was the cause of the catastrophe.

Again—a gentleman, aged 56, suffered, in 1855, from diabetes. The sugar suddenly disappeared from the urine (which, nevertheless, was voided in good quantity), and mania of very violent character ensued. There was no indication of diseased kidney; the mania, on the ordinary treatment of meningitis (cold, mercury, and purgatives) disappeared, and sugar reappeared. Here there was plenty of urine voided to carry off the sugar, if it had been formed; the respiration was not so much increased as to convert it into lactic acid or other matter: is it not more likely that here again the seat of irritation has been transferred by a cause?—afterwards discovered to be indulgence in large quantities of brandy, injudiciously given with good intentions to keep up the system.

Dr. Goolden, Dr. Gibb, and Mr. Clapton relate cases in which counter-irritation and purging, and in the last case, a carbuncle (irritation sufficient), had cured saccharine condition of the urine; Mr. Amphlett, of Birmingham, also a case in which apoplexy had cured diabetes. These, and cases subsequently to be detailed, of idiopathic vagus disease with saccharine urine, tend very strongly to my view of a saccharine condition of urine being dependent on an affection of the vagus often centric (if not always), and that the apoplectic or maniacal sequence to its disappearance from the urine is from translation of the seat of irritation and disease; and the gastric and pulmonary attendant of symptoms of such urine are the eccentric sensations from such irritation, and tend to localize the seat of diabetes where I localize these gastric symptoms.

Mental or moral exertions are very frequent causes of these affections of the vagi.

A young woman, in 1854, applied to me for relief for ciliary neuralgia. There was no other ocular or orbital affection. She had, ever since the death of a relative, some months previously, suffered from tertian epigastric uneasiness, with copious evacuation of urine: and for two or three weeks previous to her application to me had the affection of the eye. Her symptoms of diseased vagus, with saccharine urine, were marked. She was treated by nitrate of silver, opium, and quinine, with solution of potash in large doses. The stomach affection first disappeared, the ciliary neuralgic affection subsequently. She took cod-liver oil to repair her nutrition, and she has had no repetition of the attack up to last July.

A young lady, aged 34, has for some years been subject, from time to time, to this affection of the vagi. She attributes her want of health to grief on the death of a relative. The accessions of disease have been attended by wheezing, dry cough; neuralgia, followed by anæsthesia of the left intercostal nerves, and extreme sensibility of the clavicular branches of the left superficial cervical plexus, and pain along the whole course, followed by the left spinal accessory nerve. In June of this year (1856) she applied to me, having been pronounced consumptive. No trace of tubercular disease could be discovered; and at this time, under nitrate of silver, quinine, and cod-liver oil, is quite convalescent. The vagi symptoms yielded first; the other neuroses followed.

A gentleman, in 1854, who had periodically suffered from this disease of the vagi, the attacks following excessive attention to a large commercial business, applied to me. He had then cough (dry) in the morning, considerable wheezing, loss of flesh, palpitation and pain along the line of sternal terminations of the left intercostal nerves; had been said to be phthisical by one Medical man (possibly from deficient expansion on the left side from neuralgia) and to have aneurism (from the want of expansion, and great wheezing possibly) by another; no other symptom of either disease could I find. Neither could I find any disease but that of the vagi; the urine was alkaline and saccharine.

He was relieved and cured, on two occasions, by the treatment so often alluded to.

A gentleman, aged 61, actively engaged in commerce, has been emaciated many years, and suffered from wandering pains in the limbs, and not limited to the joints; sometimes, as he thinks, as sciatica, at others, neuralgia of the arm (fearing heart-disease); as intercostal neuralgia, dyspnœa, wheezing; often as pain in the larynx, with difficulty of speech. He has for years passed urine frequently, but not in large quantities, and in good stream; and on his application to me in 1854, I found it was passed alkaline; saccharine. On inquiry, he had had disease of the vagi from time to time, induced by over-exertion in an anxious business, relieved by society, and any change of situation, but especially by the south of England, where his avocations often required him. Quinine and aconite, with large doses of potash, diminished the symptoms of disturbance of the vagi and the sugar formation. The neuralgia subsequently gave way to aconite and cod-liver oil.

Many other cases I could adduce to illustrate the characters of the disease I would locate in the range of the vagi-nerves, and to exhibit the features of cerebral, pulmonary, pleural, cardiac, hepatic, and stomach-affections, which it simulates; but a few marked cases I have chosen, and condensed them from my notes.

The pathology of the disease, so far as I can at present speak, is the presence of an irritating cause in the course of the vagus, which, by the law of eccentricity, evidences itself in the terminal extremities, chiefly of the stomach and lung, and by reflex action so alters the character of blood-formation in the liver as to produce a form of sugar which is not resolvable into lactic acid by fermentation, and is, therefore, lost in value to the system. It cannot be used in the metamorphosis of tissue (hence loss of flesh and animal heat), and is thrown out by the kidney; the character of the colourless corpuscles of the blood also of the hepatic veins is probably altered, and also the constituents of the bile, accounting further for the secondary changes in nutrition which subsequently occur, and rendering such sufferers liable to carbuncle in phthisis, caco-plastic pneumonia, and chronic skin affections.

By the law of irradiation of the irritation from the vagus to other groups of nerves we account for the various neuroses and spasmodic affections which we could not account for otherwise.

Of 60 cases observed, the symptoms of 22 have been associated with those of no other organ or region than the stomach and of the mind; 10 with neuralgia of the intercostal nerves

4 with neuralgia of the nerves of the scrotum, or testis; 3 with neuralgia of sciatic nerve; 1 with neuralgia of ciliary nerves; 5 with neuralgia of those of face, neck, or arm; 3 with some disorder of the liver; 4 with spermatorrhœa; 1 with chronic vomiting; 7 with abnormal respiration, 4 of which simulated phthisis.

The treatment has been adopted, of such a character as—

1. To diminish the sensibility of the extremities of the afferent nerves engaged in the disease, the nitrate of silver, or the chloride, (held in solution by ammonia) with opium, I have found the most expeditious; it rarely purges, and is far more useful than bismuth, prussic acid, and alkalies.

2. The exhibition of nervine tonics, quinine, iron, arsenic, zinc salts, when there has appeared to be only functional derangement; but, where any head affection has been suspected, it has been removed previously.

3. The exhibition of alkalies is of great value. There is no doubt now, that sugar is an agent of great value in the metamorphosis of the system, independently of its being food for respiration, it is found in large quantity in the egg, and increases (not diminishes) during incubation; it bears an intimate connexion with the formation of bile; also, it has some influence on the solution of carbonate and phosphate of lime in the blood; but, inasmuch as it is rapidly transformed before it reaches the lung, and transformed, too, almost immediately after its production in the liver, where one of the great blood-forming functions is carried out, we see the necessity of not only restoring to the liver the function of forming a fermentable (in connexion with albuminous matter) sugar, which is arrested during disease of the vagi, but of rendering the blood such as will allow of this fermentation. An acid state of the blood will not allow it, an alkaline facilitates it; and with this view, an alkaline treatment should be conjoined with the special treatment of the neurotic affection. Liq. potassæ, in ℥j. doses, reduces the sugar in the urine, and renders the latter acid in this disease; it restores the blood, in all probability, to such a state as to transform the sugar so soon as the liver has regained its functions from alleviation of the affection of the vagi.

4. Nutrition of the body must be regained during convalescence, the value of fatty matter in this function is too well known to allow of its inutility after emaciation; besides, there is reason to consider that sugar is formed from two sources in the liver; partly from albuminous matter, partly from olein. The portal blood normally contains more olein than the hepatic, and fat in the solid residue of portal blood is as 3·225% to 1·885% in the hepatic; by the oxidation of glycerine and oleic acid, we obtain the elements of grape sugar and cholic acid. Schmidt, Bernard and Lehmann are strongly disposed to believe that the olein is one of the sources of both sugar and cholic acid. These are sufficient reasons for the exhibition of cod-oil; and I can speak very strongly in favour of its use in the treatment of neurosis of the vagus, and in cases of neuralgia depending on that disease.

These cases will, it is hoped, gain for a very common, and distressing, and often serious group of symptoms, a more definite treatment. The mental condition of the subject of them is utterly useless in business, distressing to the friends and the source of misery to himself, and if I have rightly interpreted the symptoms, I can only claim the elevation of neurosis of the vagus from a symptomatic disease to an idiopathic one of very frequent occurrence. There are some points in the conclusion to which I have come, which may appear obscure; I trust that notes of other cases will elucidate them, either my own or of observers.

In conclusion, the points of difficulty are now under chemical investigation, and I hope subsequently to give a more lucid account and explanation of the disease.

ON DYSENTERY.

A PAPER COMPILED FROM FATAL CRIMEAN CASES, OBSERVED AT MALTA MILITARY HOSPITAL.

By JEFFERY A. MARSTON, M.D.
Staff Assistant-Surgeon.

The structure of a follicle in the small intestine, according to Kölliker and Henli, appears to be essentially a small closed sac, open only at certain periods of its existence, having a thick and tolerably strong coat of indistinctly fibrillated connective tissue, with interspersed nuclei; and within this are the granular contents, etc., which appear to be constantly undergoing progressive and retrogressive development. Frei and Ernst have demonstrated the existence of numerous, but very fine bloodvessels of 0·0015—0·004‴, which are connected with a rich vascular network surrounding the follicle, and can be recognised (they state) in the contents of the follicles of quite fresh animals, recently and carefully extracted. The affirmed communication of the lacteals with the follicles, as stated by Brücke, is doubted by Kölliker, who only allows that the number of lacteals which can be traced during digestion is greater from the Peyerian patches than that in other parts of the intestine. The solitary follicles of the large intestine, so frequent in the cœcum, appendix vermiformis, colon, and rectum, appear to differ in no respects from those of the small intestine, save in their larger size, and the small pit-like elongated aperture leading down to them, at the bottom of which the closed follicles lie. The arrangement of the bloodvessels, etc., appears to be essentially similar. We believe that Dr. A. Thompson, from recent examinations of the solitary follicles of the pig and other animals, finds them always developing an opening at one period of their existence. The physiology of these glands is a matter of great dispute, but there can be little doubt, that they either directly or remotely subserve to excretion; however this may be, there can be no question of the importance of the pathological phenomena which ensue in them, in relation to this disease. While some authors, as Baly, Parkes, and others consider that an affection of these glands, is the "point depart" of this disease; others, as Rokitansky and Lebert, look upon it as a general inflammation, unattended by any special affection of the glandulæ. Dr. Baly has attempted, comparatively recently, to arrange all the forms of dysentery under one general expression, and his opinion seems to be, that sloughing is always the process pursued in this affection; but he has presented us with no series of cases in which there were gradual transitions from the glandular sloughing to general gangrene of the mucous membrane; nor does he explain how it is that enlargement of the glands should always take place. Finger, in his elaborate paper on dysentery, has, however, reconciled, more or less, these apparent anomalies, by showing that ulcers may not only be formed by extension from follicular ulcers, but also by separation of solid sloughs at parts where the exudation has been so large as to press upon and so deteriorate the nutritive processes, as to produce gangrene. Baly appears to consider the primary sloughing of the glands, due to the fact, that they are relatively the most nonvascular parts; which can hardly be correct, if their anatomy be as stated by Kölliker and other physiologists; we would rather conclude that the opinion he hazards, that a special relation exists between the condition of the blood, and the functions of the follicles themselves, is nearer the truth. In the more intense and secondary form of this disease, where we have the inflammatory affection very wide in extent, and where the amount of submucous deposit is very large, and the mucous and submucous tissues speedily become infiltrated, and softened, and pass into a state of moist gangrene, corresponding pretty accurately to Rokitansky's 4th degree, it is questionable as to whether any pre-existing glandular sloughing takes place. Dr. Baly states, that, inasmuch as he has been unable to find cases in which the several degrees of intensity, and the more elementary pathological phenomena, are co-existing with the more advanced form, if the symptoms, influences, &c., presented well marked differences, they might be considered as different diseases; but he concludes that they are merely different degrees of the same disease, similar to the benign and malignant form of our prison scarlatina.

Dr. Parkes holds that the anatomical signs of true dysentery are a peculiar inflammation and infiltration of the glands succeeded by ulceration, which ulceration afterwards spreads and implicates the coats of the intestine; and he appears to ignore any form of general ulceration or gangrene irrespective of primary glandular affection.

From 48 post-mortems of dysentery made at Malta, it appeared to us that there were two forms or phases of the disease, sufficiently distinct from one another; but judging from the pathological symptoms, that they were joint effects of one and the same cause, differing only in intensity and degree. A third form might, perhaps, be added, in which apparently the dysenteric disease merges in the complication—typhoid fever.

From the cases examined, the opinion of almost all writers,

that the large intestine is the chief and primary seat of the disease, appears unquestionable; indeed those cases in which the ilcum and smaller bowel were affected, did not appear to be pure dysentery, but were complicated with fever at one period or other of their existence, identical, apparently, with the typhoid. We conceived this to be the case prior to witnessing the affection throughout all its stages in the Mediterranean, and we are now convinced of the fact, as a not infrequent occurrence.

The cases naturally arrange themselves under two forms, 1. The follicular; 2. The croupous or gangrenous:—

1. Appears to begin with a congestion around, and an enlargement by infiltration, of the glandulæ. This enlargement appears due to a transparent, jelly-like exudation, moderately tenacious, and capable of being removed by carefully incising the cuticle, and pressing it out. Under the microscope it had a dimly fibriniform aspect, with here and there a few granules, but appeared as nearly structureless as possible. With acetic acid it became clearer and nearly dissolved.

We gradually ascend from this condition to one of progressive degeneration of the infiltrated matters, and sloughing or ulceration, with slightly-diffused inflammation, swelling and softening of the mucous membrane, and the effusion of a slight amount of free exudation upon the surface of the intestine and the sub-mucous tissue, chiefly around the seats of the ulcers, until we reach a more intense stage, in which the mucous coat becomes softened and friable, and the submucous tissue much thickened, and infiltrated with a degenerate and partly serous effusion, here and there discoloured with dark or greyish slate-coloured patches of pigment, occasionally even quite black, with the veins generally full of stagnant contents, and a considerable amount of ecchymotic-looking effusion in their neighbourhood, with much loss of substance by ulceration; the size of the ulcers varying from that of a millet-seed to a crown, and surrounded by patches of more or less sloughy tissue. The thickness of the bowel was, in many cases, very great, indeed; but, among the Crimean cases, this was not by any means so common a sequence as it appears to be among the Indian chronic cases. In four cases only did extreme contraction exist, and in these the amount of exudation, both free and sub-mucous, was very large indeed; tough, and well-organized. It appeared to us that the contraction in the calibre of the gut ensued from shrinking of the effused matters, similar to the contraction of the effused fibrin which occurs in cirrhosis, hepatic or pulmonary. To this end, also, the contraction ensuing from the healing of the ulcers probably conduced, but not in a very marked degree, as in three of the cases we could not discover, by careful examination, any of the ulcerations healed.

This great contraction appears also to be much more common among the chronic cases of dysentery of India than we found it among the Crimean cases. In well-selected cases, it was possible to find every possible pathological stage of the disease; and, as a rule, the rectum and descending colon appeared by far the more advanced, while the arch and ascending portions were either quite free, or only presented a rough granular appearance, from being studded with the enlarged follicles, in an incipient stage of the disease. The ulcers left by these follicles heal in various ways; the process, we conceive, materially depending upon their size—sometimes by a dense, fibroid cicatrix, of linear form; more frequently they appear stellated, puckered, and depressed, from apparent contraction and bevelling off of the surrounding edge—often, also, the process of granulation is very obvious. In some singularly well-selected cases, we may detect the different stages and processes of this natural cure. In five cases at least, carefully examined, we found here and there the surface of the late ulcer, occupied by delicate, vascular, mushroom-like projections—in short, very minute granulations, which frequently projected above the surrounding edge, exactly analogous to ulcers on the limbs, in which the granulations are small, but redundant and pouting. In the larger ulcers this seldom, if ever, occurred—at least, we never observed it, the healing taking place by the process described by Rokitansky, the granulations being anything but luxuriant, and leaving, upon healing, a depressed cicatrix. We examined frequently the surface of these apparently healed ulcers, but we never could detect epithelium covering them; it seems, therefore, that they are very long indeed before (if they be at all) covered with epithelium afresh. In many of the Crimean cases, we may mention, beside the emaciation which existed in every chronic case, there was a more than coincident atrophy of the bowels themselves, from great tenuity of their coats; and in these cases, the amount of exudation, even in the immediate site of the ulcer, was comparatively trifling.

These cases are by far the most chronic, and more generally those in which the typhoid and scorbutic complications exist. The patients were, as a class, weak and cachectic, and had been exposed to evils tending to impoverish the blood—as, bad diet, animal poisons, and miasmata. In seven cases we carefully watched (occurring in the Mediterranean) there was the combination of symptoms by which we diagnose typhoid fever. In these cases, also, enlargement and softening of the spleen, with ulceration of Peyer's glands; swelling and injection of the mesenteric glands; a fluid condition of the blood, with a flabby, softened, and uncontracted condition of the heart, were generally observed. Some of the cases undoubtedly had a scorbutic crasis, and were quickly improved by vegetables and liberal diet; and we conceive that many of the cases in which anæmia, and great tenuity of the coats of the bowel, were marked, this diathesis had been acquired. In two fatal cases of typhoid fever, where the men died apparently of asthenia from the depressing influence of the febrile poison, and where the local lesions were comparatively trifling, we found, besides the enlargement and congestion of Peyer's glands, that those of the large intestine were much developed from infiltration, without any ulceration.

The second form is characterized by its tendency to spread very quickly and widely (without any necessarily apparent affection of the glands), and to the production of a large and uniform amount of exudation, both free and submucous, and running speedily into extensive sloughing and gangrene. Spreading frequently over nearly the whole surface of the larger bowel, or aggregated at the colonic folds, we have an easily-detached, soft, croupous-looking effusion, which consists of a substance resembling imperfectly-coagulated fibrine, mixed with blood discs, epithelium, and granular *débris*, mingled with pus. With this there was generally an enormous amount of submucous exudation, giving rise to an increased thickness of the bowel, which could be plainly seen by section. This exudation is of various colours, soft, friable, and succulent; mingled, here and there, with pigmental deposit; or in a degenerate state, friable, mottled in colour, of olive green, dark, or slaty, easily tearing, and exuding much sero-purulent matter—sometimes even completely gangrenous, and possessing an odour of incipient gangrene. Among the cases we saw and examined from the Crimea, the folicular ulceration, and glandular sloughing of the first form, were rarely apparent in this variety; but this latter form was very rare among the Crimean patients, probably from the speedy fatality of the affection; but in eight cases examined, chiefly from among those occurring in the Mediterranean, we found that the rectum and sigmoid flexure of the colon were in a sloughy condition; while, along the ascending and other parts of that bowel, you might perceive various pathological degrees; and at some distance from the focus of the disease, the enlarged vesicular-looking follicles were abundantly and easily discerned. Finger says that the follicular lesion was combined with this exudation in 230 cases, and absent in one. Certainly, a far higher proportion than we noticed, as it was by no means uncommon to discover this second form, without any obvious enlargement of the glandulæ. In this variety, also, you find over the surface and in the situation of the enlarged vessels, a large amount of fibrinous effusion, which must evidently, by its pressure and degeneration, have much influenced the tendency to sloughing. Nothing can better describe an intense case of this kind than Rokitansky's fourth degree. He makes no mention, however, of the condition of the glands, and it appears to us that, in this variety, the whole mucous surface is destroyed by sloughing, as a rule, without primary glandular affection, in a manner similar to the skin and areolar tissue in phlegmonous erysipelas.

The tendency in this variety is markedly toward gangrene, or extensive sloughing, which is comparatively rare in the follicular form. The typhoid complication never existed. As a rule the cases were far more acute, and quickly fatal, of course; and the class of patients attacked were of a different and more sthenic type than the former. The disease appeared more traceable to hygrometric and thermometric changes, independently of longer continuing evils, which might tend to produce a toxæmic condition of the blood; but, spite of these

differenees, we are inclined to consider them strictly as one disease. Among the whole number of autopsies of dysenteric cases we found but two having hepatic abscess, and in these we could not determine symptomologically which affection preceded. From this being a frequent complication among the Indian cases, and Dr. Budd's manner of accounting for it, we anticipated to have discovered it more frequently. The abscess in both cases might have been the result of phlebitis in some of the tributaries of the portal vein, or have arisen from some pyæmic contamination of the portal blood; but we could find no anatomical evidence of the fact. Some Indian Army Surgeons attribute the frequency of hepatic abscess to the extreme use of mercury; and Dr. Templeton, who saw much of dysentery in India and Ceylon, states that the noncontinuance of the mercurials (at least as far as the production of its constitutional effects was concerned) was productive of the most marked diminution in the number of hepatic abscesses, among dysenteric patients. In addition to the very large number of Crimean cases passing through, we had among the drafts in Malta (more partieularly, nay, almost exclusively, among those encamped there) every variety of this disease, from the slightest, which might be termed, from its mixed character, dysenteric diarrhœa, to the very worst and most rapidly fatal forms. Among the latter forms we found that the patients had from the very first great prostration and evident tendency to collapse; and occurring, as some of them did, during an epidemic of cholera morbus, from this marked tendency to collapse, they were considered for a time to be examples of that disease, had not the subsequent progress and autopsies proved their true nature. In many cases tubular casts of degenerated mucous membrane with exudation were passed by stool.

The symptoms of dysentery being so accurately known by every one, we abstain from describing them at all, but we may mention that, in some of the more rapidly fatal cases, towards the end of the disease, a stage occurs easily mistaken for meningitis. It is marked by frequent and obstinate vomiting, delirium; at first, contracted pupils, some heat of scalp, and a highly injected conjunctiva, succeeded by coma and death. During this period, in a few cases, the urine has been very small in quantity, laden with blood, discs, and albumen, and of a slightly lower specific gravity than normal (considering the small amount passed), and these cases, consequently, looked like uræmic poisoning; but this condition of the urine was not invariable.

Upon examination after death we never discovered the slightest trace of disease, inflammatory or congestive; and save slight effusion of a serous kind, and a little venous congestion, the cerebral substance was remarkably pale and anæmic. If this condition be mistaken for meningitis, or active congestion, the antiphlogistic treatment has a most injurious effect, and it is only by the most powerful stimulants—as ice, and champaigne, or brandy—that we can offer our patients even a chance of recovery. Cold douche to the shaved scalp appears to have a beneficial effect in rousing the patient; but they are invariably fatal cases sooner or later.

Whether dysentery can be propagated by contagion, where dirt and bad ventilation exist, as Dr. Copeland conceives, or whether it only becomes so by virtue of the typhoid fever being engrafted upon the disease, as some authors imagine, we cannot state from any experience, no probability of its having so occurred having existed with us.

There can be no doubt, we think, that dysentery is no mere colitis; for its specific course, the frequent coexistence of symptoms, out of all proportion to the local disease, its specific pathological nature, and the influences under which it arises in common (as Raspaill, in his work on Algiers, has pointed out very markedly) with fever, remittent, intermittent, and typhoid, under miasmatic influences—all tend to prove that it is a specific inflammation, the proximate cause of which is probably some blood-disease, and hence, probably also, the occasional congested condition of the kidney, with albuminous urine, and cephalic symptoms, as well as the beneficial effect that change of air and diet exerts on the disease. It is possible, however, that the condition of the urine and head, etc., may arise from vitiation of the blood, induced secondarily by the destruction of the glands. Osterlin points out the very large amount of albumen existing in the discharges, by which he states that in three weeks the organic losses will amount to more than the entire blood-mass; and he and Dr. Einer speak very highly of the use of iodine injections as tending to arrest this in the most marked degree. They have not, however, proved so useful with us, although unquestionably often very beneficial.

As to treatment, we would advise that, in the slight cases, the primary stage should be treated by leeching the anus, to relieve the portal system,—warm bath, Dover's powder, soda, and hydrarg. c. cretâ, in frequent doses, followed by ol. ricini ʒiij., tinct. opii mx. every, or every other day, with frequent warm water and opium injections. This plan never failed in the milder cases to produce a favourable result; and, although the amount of constitutional action was considerable we never used general bleeding at all. With the acuter cases, we pursued a similar treatment, save that the warm bath and warm water and opium injections were used very frequently, leeching was more extensive, and a small quantity of ipecac. pulv. added to the powders; occasionally, also, we used iodine injections. The diet was chiefly milk and lemonade; and where any prostration appeared, we did not hesitate to give stimulants, while pursuing the same treatment.

In the chronic form, after trying every possible variety of treatment, we came to the conclusion, that none was so beneficial as a combination of quinine, tannic acid, and opium, or morphia, every three hours, with frequent use of warm opiate injections, small in quantity, with occasional use of strong injections of nitrate of silver or iodine.

The diet requires to be liberal, and such as is easily absorbed by the stomach, as beef-tea, chicken, milk, lemons, and generally wine or porter is required also. A frequent change of ward is highly beneficial, and I conceived that elevated wards were superior to the lower ones. Mercury in any form or quantity is decidedly positively poisonous in the chronic forms, and appears, when given mildly, and in small doses, as hydrarg. c. cretâ, to be beneficial in the acute stage—of course also diaphoretic or saline febrifuges may be used contemporaneously. Of course, if any scorbutic or typhoid complication exists, the treatment may be modified accordingly. The French Surgeons, I understand, use sodæ phosphas in large doses in this affection; but from the use we made of it, we did not conceive it to possess any decided advantages. It is rarely in chronic dysentery that the plan we propose will be found to fail in benefiting the patient, and prolonging his life (even if it fail to cure), until he can be sent to another climate.

CASES OF OBSTRUCTION OF THE BOWELS.

By JAMES LONG, Esq., F.R.C.S.E.
Surgeon to the Liverpool Royal Infirmary.

Case 1.—*Irregular sac, formed by the colon containing feculent concretions.*—Some years ago a gentleman, aged 27, consulted me in consequence of a tumour in his abdomen. Though thin and somewhat delicate in appearance, he enjoyed excellent health, had a good appetite, and took a great deal of exercise. For many years he had not had a consistent evacuation from the bowels. He had for years been in the habit of using a copious warm water enema night and morning, which always returned of a dark, dirty colour, without bringing any substance with it. On examination, I found to the left of the umbilicus a tumour as large as the fist; it was irregular, and in shape knobbed and perfectly hard. I could not displace it from its bed, but could move it freely along, with whatever contained it, in all directions. I could push it under the margin of the ribs, or drag it down towards the pelvis. I suspected, from the history of the case, that the tumour consisted of hardened fæces impacted in a pouch formed by the colon. He suffered no inconvenience from it, but was anxious to get rid of it, if possible. I used a copious injection of warm water, so as to fill the colon, and squeezed the tumour, with the intention of breaking it down, but made no impression upon it. On examining the sediment contained in the water that had been injected, I found a large quantity of gritty particles and husks of corn. On pointing them out to him, he told me that ever since he could recollect he had been in the habit of eating oats and other corn out of the provender box in the stable. I repeated the copious injections daily, and the tumour sensibly diminished. He then went to Harrogate, and his chief occupation consisted in sitting in the bath, and while there using the enema; he also drank the waters freely. At the end of six weeks he returned, and the tumour was gone; but on a careful examination, I could detect a thickened portion of the colon, as a sort of

irregular sac, in the exact spot previously occupied by the tumour. It soon began to form again, and he again resorted to the free use of the Harrogate waters, and with the same result as before. I met him five years afterwards, and he then informed me the tumour was just the same as when I first saw it; that he had not time to attend to it. I then lost sight of him.

Case 2.—Supposed tumour in the omentum; feculent accumulations, probably of eighteen years' duration; rupture of the intestine; post-mortem.—A lady, apparently in about her 50th year, called upon me. She complained of a dead weight at the lower part of her abdomen, a frequent call to relieve the bowels, each time passing little, sometimes only a little blood, and sometimes blood and mucus. She was very stout, looked extremely well, and had a good appetite. I suspected the large bowels to be overcharged, and irritated by their contents, and the probable existence of some contraction of the rectum. I prescribed warm aperients, which for a time produced some relief. She called upon me from time to time; as the symptoms however still continued to a certain extent, I proposed to examine the state of the abdomen and rectum, particularly as her husband informed me that, after the birth of her last child, who had now attained his 16th year, the Surgeon informed him that he felt distinctly a tumour in the abdomen, which moved about freely, and probably existed in the omentum; that though he (the husband) had formerly felt it, and moved it about freely, he had not been able to do so of late, owing, as he supposed, to his wife having become so much stouter; that he had at different times taken the opinion of five Medical men in London upon it, and they had all corroborated the opinion previously given.

The abdomen was so distended with flatus, and coated with fat, that I could, by examination, make nothing out. On examination of the rectum, I discovered, as high up as the finger could reach, an invagination of the mucous coat. I could circumscribe the protruding portion with the tip of my finger, and introduce it into the protruding orifice. I was anxious to make a more minute examination, and to introduce a tube into the protruding orifice, for the purpose of using a copious enema, but was not permitted to do so. Feeling satisfied that the large intestines were in a loaded state, I suggested a visit to Harrogate, and a course of the waters.

Her husband, however, took her to London, to Sir B. Brodie, who on examination could detect nothing wrong in the rectum. He met Dr. Bright in consultation; the latter discovered a hard tumour in the region of the cœcum, and directed Sir B. Brodie's attention to it. Some liquor potassæ and hyd. c. cretâ, with Dover's powder, was ordered. She remained in London six weeks, without receiving any benefit. Dr. Bright wrote me a note to the effect, that the case was one of great obscurity, and would be attended with considerable anxiety.

After her return from London the state of matters was as follows:—About 6 a.m. the bowels commenced to be disturbed, there being frequent small evacuations of blood and mucus, and small quantities of fæcal matter. This was sometimes thin and dark, at other times, particularly after any aperient medicine had been taken, hard dark lumps, the size of the last joint of the thumb, were passed. As I was neither allowed to make another examination, nor to use enemata, I prevailed upon her to visit Harrogate. In July she went there, about twelve months after my first attendance. By taking, under the superintendence of a gentleman there, mild aperients and the sulphur waters, she passed quantities of liquid fæces, and copious, bulky, scybalous stools. These were occasionally followed by bloody, mucous evacuations, attended with considerable pain. At times a considerable quantity of pure blood was passed. While under treatment at Harrogate, considerable tumefaction and pain occurred in the right lumbar region, but disappeared after the copious fæcal evacuations above alluded to. No examination of the rectum was permitted. On her return, she had the same teazing symptoms as before; frequent desire to relieve the bowels, blood and mucus, and small bits of fæculent matter being passed. These bits were sometimes small and round, as if forced through a small aperture; at other times they consisted of hard, irregular fragments, with dirty-green débris, as if they had been broken off a large mass. Whenever aperient medicines were given, the evacuations were large and pultaceous, and at these times no blood was ever passed. I felt more convinced than ever that there were still scybalæ in the intestines, and an impediment to their free egress, and she again returned to Harrogate, and remained a month. While there she had a slight attack of jaundice, and took mild mercurials and the waters, and passed large, solid evacuations, which were described as not scybalous. On her return home, matters went on just as before, the fæces being of the same character as before her visit to Harrogate, except that they were never pultaceous, and sometimes during three or four days bloody mucus, without any admixture of fæculent matter, would be passed.

I now prevailed upon her to use enemata frequently, but she said they were of no use, that no more than half-a-pint or so would pass; she would not allow me to use them for her, but decided upon visiting Edinburgh, in order to obtain an opinion upon her case. As I was requested to write out its details, I took the opportunity of urging another examination per anum, as well as a careful examination of the abdomen, which I had not been again permitted to make. I found in the rectum, but lower down than on the former occasion, a protrusion of the mucous coat; it was at one point considerably elongated, hard, and prominent, as if some hard matter were placed behind and above it; the finger could be introduced as before into the aperture of the gut, and this elongated portion could be pushed up so as to block up the aperture. At first I suspected this portion to be a polypus, but soon found it was a portion of the mucous lining with a piece of hardened fæces behind it. There was no irregularity or hardness of the gut itself. Being obliged to do only a little at a time, I went in the evening for the purpose of examining the abdomen.

I found her seated in a chair, and, though in excellent spirits, and talking cheerfully with her family, she was at times evidently in pain, her movements and the expression of her countenance being exactly similar to that of a woman in the first stage of labour. She described her feelings as if some hard bodies were passing across her abdomen from right to left; that having arrived at a certain point as if they were about to pass, they then took a retrograde movement, and that the same process was again and again repeated. On placing my hand on the abdomen I felt distinctly a series of hard masses, obviously scybala, move on in the course of the transverse arch of the colon towards the sigmoid flexure, and after a pause take a backward movement. Being anxious to put a stop to this peristaltic and antiperistaltic movement, I ordered a full opiate and left her.

Early on the following morning (December 29) I was sent for. After having suffered great pain, she felt the sensation of something giving way. When I arrived I found her in a state of collapse, with intense pain in the abdomen; and she died with all the signs of rupture of the intestine, precisely twelve hours after she felt the sensation of something giving way.

The body was examined about 48 hours after death; the abdomen was enormously distended with gas. The omentum presented neither adhesions, induration nor tumour. A large mass of indurated fæces lay in the right iliac fossa, pushing upwards the cœcum: about a dozen similar masses lay in the pelvis, their size varying from a hen's egg to a lemon, and not unlike the latter in shape; they were smooth on the surface as if they had been long subjected to attrition, of a dark olive green colour, and of a subdued fæculent odour; when thrown into a bucket they rebounded and produced a sound similar to what would be produced by a wooden ball; they were cut with difficulty by the scalpel, and presented no calcareous or gritty particles; one or two similar masses were contained in the ascending colon, and several in the transverse colon, which was remarkably tortuous. Those in the transverse colon were placed at intervals without any fluid fæces between them, and could with the greatest ease be made to glide backwards towards the cœcum or in the opposite direction—these were of the size of a large lemon. The descending colon and especially the sigmoid flexure were crammed full of masses precisely similar to those already described, but smaller—I counted more than 20 pieces; scarcely a particle of soft fæces could be found; on raising up the sigmoid flexure out of the pelvis, for it was remarkably elongated and dragged down by its contents, the fæces escaped into the pelvis, through an aperture existing at the point where the first turn of the rectum joins the second. I could just reach this point with the tip of my finger introduced from the anus; immediately below it the gut was somewhat contracted, but there was neither

thickening nor induration, it seemed merely a contraction of the circular fibres of the gut; the mucous membrane could easily be pushed down through this from above, so as to form a prolapsus or fold. The parts presented no appearance of ulceration or inflammation, the aperture seemed to be a rent, and the coats of the intestines were remarkably thin, as if they had been worn away by the constant attrition of the hardened masses which had been arrested and detained there.

I think there can be no doubt but that the supposed tumour in the omentum, and the hard tumour in the region of the cœcum, discovered by Dr. Bright, were hardened fæces, and whether or not the fæces found in the abdomen and intestines were the identical ones then felt, no doubt can exist but that they had existed for a very long period, and had allowed the more fluid contents of the bowels, particularly when urged on by medicine, to pass by them.

REMARKS ON THE ACTION AND USES OF THE CHLORATE OF POTASH.

By STANHOPE TEMPLEMAN SPEER, M.D.

A communication from the pen of Mr. Hutchinson having appeared in the *Medical Times and Gazette* of August 15th, 1856, relative to the actions and uses of the chlorate of potash, I venture to lay before your readers the conclusions lately arrived at by M. Isambert, respecting the salt in question. In doing so, I shall, for brevity's sake, content myself with a mere summary of the communication alluded to:—

Upon the Nervous System chlorate of potash acts as a sedative. This action is not perceptible in health; it would appear to show itself only in certain pathological conditions.

Upon the Circulation it also acts as a sedative. This action is manifest only in disease; in health it is imperceptible.

Upon the Respiration.—Its action here is negative, or at least is confined to a trifling irritation of the bronchi and larynx, which may prove serviceable in certain diseases.

Upon the Digestive Organs it acts, in general, as a stimulant. It increases the secretion of saliva in a marked degree, and appears to act as a useful substitute in mercurial salivation; upon the biliary secretion it acts as a gentle stimulant, capable of determining a slight bilious flux, although not freely eliminated by this organ. Possibly, moreover, it may act as a sedative upon the nervous or inflammatory element, in cases of jaundice.

Upon the Urinary Secretion it acts as a moderate stimulant in large doses; in small doses, its action is but slightly marked.

Upon the Mucous Secretions it acts as a stimulant and as a beneficial alterative. It is eliminated by the cutaneous surfaces, without increasing their natural secretion. It acts more slowly in skin diseases than in those of mucous membranes: it appears, moreover, to favour interstitial absorption, according to Chaussier and Bertrand. As regards what chiefly merits attention, viz., the action of this salt upon the buccal, nasal, pharyngeal and laryngeal membranes, we hesitate to pronounce authoritatively respecting its real *modus operandi*, this being, as yet, a mere matter of hypothesis. We believe it, however, to possess the power of modifying the vitality of these membranes, through its elimination by the mucous secretion itself; its free elimination, moreover, by the saliva, explains its specific action upon the mouth. On calling to mind the cures performed by M. Lasegue, with this salt, when used as a collutory or gargle, we might be tempted to regard its action upon the mouth as merely topical. This, however, we do not believe to be the case; the trifling amount of chlorate of potash found in the saliva, especially when given in small doses, cannot be compared to the saturated solutions employed by M. Lasegue. A proof that the chlorate of potash when given internally is not exclusively a topical agent, returning as it were, by the salivary secretion, is its difference of action upon the mucous membrane of the cheeks and lips, and upon that of the gums, endowed with a lower degree of vitality than the lining membrane of the other parts of the mouth; allowing, however, that its action be a topical one, it will always be advantageous to administer it internally: the taste of this salt being almost imperceptible in a sweetened solution.

An experiment was made lately by M. Blache with the view of ascertaining the topical action of the chlorate of potash. A child, 8 years of age, affected with membranous stomatitis of one month's standing, was treated by the local application (6 times daily) of this salt, in a strong solution (5 per cent). After three days, the false membranes began to detach themselves, and at the end of a week, they had almost entirely disappeared; the cure, however, proceeded more slowly than when the salt was administered internally. The mucous membrane remained of a dark red colour after the disappearance of the exudation, and the extent of diseased surface was, for some time, but little diminished; the cure not being completed before the fifteenth day. Chlorate of potash, moreover, was found in the urine of this child, showing that it had either been absorbed by the mucous membrane or else swallowed.

Has the chlorate of potash, we may ask, a specific action upon the constitutional origin of diphtheritic exudations? Facts do not permit of our answering this question in the affirmative.

It has no specific action against certain diseases, such as syphilis, for which it has been long employed.

As a topical application, it ranks with certain other mild irritants, such as borate of soda, sulphate of zinc, etc. It favours the cicatrization of ulcers.

As an internal remedy, it may be classed with the alteratives. Its analogous salts being the hydriodate and nitrate of potash, rather than the alkaline carbonates, from which it differs in its action upon the urine.

Method of administration.—The chlorate of potash may be given in doses of from half a drachm to 2 drachms daily.

No inconvenience results from increasing the dose of this salt, some of its physiological effects being only obtained when given in somewhat large quantities; viz, diuresis, profuse salivation, its action on the larynx and bronchi. The only difficulty connected with its administration, consists in its slight solubility. The ordinary solution of gum-arabic readily dissolves from 75 to 90 grains at a temperature of 60 degrees; but it is not sufficient, merely to add crystals of the chlorate to the vehicle about to be employed, and in which they would dissolve with difficulty; it is preferable, as recommended by MM. Bergeron & Vial, to dissolve the salt completely in water, before adding syrups, &c. In drachm-doses, this potion is by no means disagreeable, and children take it readily.

Should it be desirable to administer the remedy in large doses, it must be dissolved in a large quantity of fluid; in this state it is more easily borne by the stomach, than when given in concentrated solutions. Chaussier advised the remedy to be given at meal-times, an important precept, more especially when large doses are administered. Odier gave it in broth.

It may likewise be given in powder, mixed with sugar, as recommended by Herber and Schoeffer.

Lastly, it may be prescribed as a topical application; in the form of a lotion containing 5 parts of the salt to 100 of water at a temperature of 60 degrees. If a more concentrated solution be desirable, hot water must be employed, as was done by M. Lasegue; at a temperature of from 86 degrees to 104 degrees, 15 per cent of this salt may be dissolved.

Its application in the form of powder, combined with starch or oxide of bismuth, would appear to produce pain.

Cheltenham, August 18, 1856.

CASE OF DIFFICULT DIAGNOSIS.

By H. E. SHAW, Esq.

Mrs. Jane K., aged 41 years, married; has never had any family; spare habit of body, and has generally enjoyed good health till within six or eight months, since which time, but more particularly during the last three months, has had relaxed bowels, rarely passing a solid stool, and at such times not thicker than the little finger. She had not, however, thought it necessary to consult any medical man till Thursday, the 31st of July, when I was requested to visit her. She stated that she was quite as well as usual on the previous day, and had very much enjoyed her dinner, which consisted of bacon and green peas; that in the evening, about seven o'clock, she had a deal of pain in her bowels, for which one of her neighbours gave her some brandy and water, and she felt much relieved; her bowels had acted that day as usual. I found her in bed, lying full-length upon her back. She complained of pain and uneasiness (by no means of an acute character) over the course of the transverse colon, but little increased by pressure; neither was there any sensible fulness or distension of the abdomen,

She had a good pulse of 86; a moist, but slightly white tongue, with an indented margin; was rather thirsty, and passed little urine—scalding and high-coloured. I ordered her hot fomentations to the bowels, gruel tea, sago or arrow-root, as her diet, and directed her to send after me for some medicine, which consisted of the following formula:—Olei ricini ʒss. to be taken directly. ℞ Hyd. chloridi gr. xij., pulv. opii gr. iss., conf. aromat. gr. v. Misce, ft. pilulæ vi., capiat unam 4tis horis cum sing. dosibus misturæ sequentis. ℞ Liq. ammon. acetatis ʒiss., sp. ætheris nitrici ʒiij., aq. menthæ viridis ad Oss. Mist. ft. capiat ʒi. 4tis horis cum pilulâ. On the following morning I received a message that she had little or no pain in her bowels, which had not acted since I saw her. I thought it advisable to send her some active aperient, and, shortly after, rode over to see her again. She had vomited several times, but the two doses of pills I sent her had not returned (the pills were composed of Corbyn's extract of colocynth and henbane). She had now stercoraceous eructations frequently recurring, and the bowels had become tympanitic. I very carefully examined the inguinal regions, abdomen, etc., but, externally, could not detect any indications of hernia, or abdominal tumour. I at once gave her an enema of castor-oil, turpentine, etc., which, however, very soon returned uncoloured, without any fæces or fæcal odour. I then examined the rectum, and could detect, just within reach of the finger, something like a pouch of gut, containing a hardish mass, which I thought might be invagination of the rectum with scybala within its folds. I then gave her olei crotonis ♏ij. contained in a gelatine capsule, which was retained in the stomach, and, in the absence of a rectum bougie, attempted to pass up an ordinary dip candle, which I succeeded in doing, and shortly after repeated the enema, which returned in about five minutes, accompanied by flatus, but nothing more. As, however, the escape of flatus was by no means an unfavourable augury, I again repeated, in about half-an-hour's time, the enema, which was retained about the same length of time, and returned without fæces or flatus. There was no return of vomiting, and I directed the nurse to give the compound colocynth pills with henbane every four hours, and repeat the enema every two hours during the night, if she was awake. I also left her a dose of liq. opii sed. to take the last thing at night. I saw the patient early next morning (August 2), she had passed a tolerably comfortable night; bowels had not acted; abdomen more distended and tympanitic; very little pain on pressure; had voided urine freely. After one of the injections, given by the nurse in the night, a small hard portion of fæces had passed away; has hiccough, and is much troubled with stomach flatulence. Upon making an examination per rectum et vaginam, I could not discover any change worthy of note, and, although there was so little constitutional disturbance I could not give any other opinion to her husband than that I considered her life in a very critical state, and without more active means being adopted I feared she must die; that a surgical operation was the only alternative. At nine o'clock at night Mr. Thomas Chavasse attended the case in consultation with me, and he, upon close and careful examination, concluded that the obstruction was in the rectum. We agreed to give her ♏40 of liq. opii sedativ. and see her early in the morning.

Sunday, Aug. 3.—She had passed a very comfortable night; still no action on the bowels. She had passed urine freely, and at times had heard and felt peristaltic action of the intestines. Pulse good; skin warm and moist; tongue rather white, but moist. Having placed her in a suitable position we examined the rectum through the speculum. Small ulcers were discernible upon the mucous membrane about three inches from the anus. An attempt was made very gently and carefully to pass a rectum bougie through what appeared to be the orifice of the invaginated portion of gut. Mr. Chavasse then suggested the propriety of a free incision into what we deemed to be the tumour of hard, imprisoned fæces, but in attempting this I did not succeed, as the protuberance receded from the point of the scalpel when I endeavoured to pierce it. Some small quantity of blood escaped per anum afterwards, and, probably in consequence of dividing some portion of the mucous membrane, the tumour was allowed to escape higher up the rectum, as, upon re-introduction of the finger, it could barely be reached. Two pills of Corbyn's ext. and henbane were given every three hours, till our visit in the evening, at which time the case appeared to be *in statu quo*. We then gave her about three ounces by weight of quicksilver; and, with the necessary directions as to support, viz., beef-tea, milk, and a little brandy in case of need, appointed to see her at eight o'clock in the morning (Aug. 4), at which time we thought it most advisable (with the consent of the patient and her husband) to resort to the last means which we hoped might save her life—to make an artificial anus in the left loin; for which purpose Mr. Thomas Chavasse, Mr. Howard Chavasse (his son), and I met in the evening, and, as the state of the patient did not warrant further delay, we at once proceeded to perform M. Amussat's operation for her relief. She was laid upon her face, with a firm, hard pillow under the abdomen, when Mr. H. Chavasse administered chloroform, under the influence of which, assisted by Mr. Chavasse, I commenced and completed the operation within six or eight minutes, without any untoward incident occurring to detract from the hoped for success of the operation. It would be an unwarrantable trespass upon your valuable space, as well as a work of supererogation, to give in detail the successive steps of an operation so graphically described by those able and talented Surgeons, Clement of Shrewsbury, and Crompton and Barker of Birmingham, from the perusal of whose cases, recorded in the 20th and 28th Vols. of *Braithwaite's Retrospect*, I derived much assistance relative to my own ease.

When the incision was made into the intestine, a little flatus escaped, highly impregnated with the odour of turpentine, asafœtida, &c., which had been administered in the enemas, but no fæcal matter passed. Not more than an ounce of blood was lost during the operation, nor was any artery divided which required ligature or torsion. The patient was replaced in bed, and expressed herself as feeling comfortable, and was not then aware that the operation had been performed. She had 40 ♏ of Battley's solution of opium at night, and was visited the following morning by Messrs. Chavasse, myself being unavoidably prevented accompanying them. She had passed a tolerably good night; no passage of fæces, and but little flatus; a stringy piece of fatty matter was protruding from the opening in the intestine, which was drawn out, the wound dressed with lint dipped in warm water and covered over with gutta percha tissue; she had taken little nourishment; pulse 86; had vomited some bilious matter once or twice, and was rather thirsty. I saw her in the evening; nothing had passed through the bowel; had voided urine freely; tongue moist and clean; pulse 120 and very feeble; general surface of the body of a genial warmth; urgent desire for cold water to drink; occasional eructations accompanied with fluid ochrey fæcal matter; mind calm and quite collected. I ordered her some brandy and water, to continue the beef-tea, and sent for her a mixture of chloric ether and camphor mixture to be taken every two or three hours. I informed her friends that I entertained a most unfavourable opinion of the result. She passed a restless night, and died next day at 5 o'clock in the afternoon, nothing except flatus having passed. Her husband and relations gave me permission to make a post-mortem examination, which was undertaken on the following morning (fifteen hours after death), in which I was assisted by Mr. H. Chavasse. The result of the autopsy was not so satisfactory or confirmatory of our diagnosis as I anticipated it would be. On opening the abdomen we found the intestines much distended with flatus; the omentum of a deep yellow colour, exceedingly tough, and much thickened. We removed the whole of the intestines to the anus, having previously traced their course with finger and thumb, in order to discover if and where any obstruction existed, but did not then detect any. Probably, during this process some invaginated portion of intestine may have been withdrawn from its interlocked position. We subsequently slit up the whole course of intestine; no stricture or intussusception was discovered, but about three inches from the anus several recent small ulcers were observable on the mucous coat of the rectum, and at this point there appeared a dark hue of inflammation; the descending colon, where the opening had been made, had become quite green for about half-an-inch at each extremity of the incision; from which point, along six or eight inches of the colon upwards, the whole calibre of the gut was plugged up with soft flocculent fat, backed up by about a table-spoonful of black currants, which I afterwards ascertained she had eaten on the previous Tuesday, while making preserves. In every other portion of the intestines the fæcal matter was of an entirely fluid and ochrey character, nothing in the shape of

scybalæ being observed. No other appearances of an abnormal kind were noticeable about the intestines. The uterus was certainly of a very peculiar and extraordinary shape; the body was very small, with a round hard fundus like a small ball of about two inches in diameter.

Sutton Coldfield.

THE FOREIGN

PRACTICE OF MEDICINE AND SURGERY.

SERIES ILLUSTRATING THE CONNEXION BETWEEN BRONZED SKIN AND DISEASES OF THE SUPRA-RENAL CAPSULES.

(Continued from page 115.)

The three following cases are, we believe, the only ones which have as yet been recorded by Continental Physicians bearing upon this subject. It will be seen that they all tend to support the conclusions announced by Dr. Addison. We have extracted them from the pages of the *Gazette Hebdomadaire*. While on the subject it may be convenient here to notice the recent experiments of M. Brown-Séquard respecting the effects of removal of the supra-renal capsules. In a paper read before the Académie des Sciences on the 25th of August, that physiologist states, that, as the result of a very large series of experiments, he has determined that those organs are scarcely less essential to life than the kidneys themselves. The experiments have been made on dogs, cats, rabbits, and guinea-pigs. The average duration of life after extirpation of both organs was about eleven hours and a-half. As yet even after the removal of but one capsule death has invariably resulted (a). The principal symptoms observed, consisted in a remarkable debility, difficulty of respiration, disturbed circulation, and at length convulsions, giddiness, delirium and coma. The convulsions, which were especially severe in rabbits, appeared to take place by reflex action, as those excited by strychnia and other poisons. In those animals, from which only one organ had been removed, the convulsive spasms were often more marked on the injured side of the body than the other. Sometimes the rabbits were observed to roll over on themselves, as takes place after wounds of certain parts about the base of the brain. In proof that these phenomena are not caused by the injury necessarily inflicted in the operation of extirpation, but are really due to the removal of the capsules, the writer states that he has repeatedly inflicted severe wounds on the peritoneum, and on the organs adjacent to the capsules, but without any such train of symptoms resulting. He also inclines to think, that it is not to the irritation of the nerve-trunks of the sympathetic that the phenomena in question are due, since both in experiments made by Haffler, by Claude Bernard and by himself, in which the abdominal trunks of the sympathetic were either cut through, or severely injured, the animals often lived for long periods. He believes that after the removal of the capsules the blood becomes charged with a poisonous principle, which is the cause of death. Amongst other interesting observations M. Brown-Séquard has also ascertained that the supra-renal capsules, so far from being as formerly thought, organs important only to embryonic life, constantly increase in size from birth to adult age. He has also found that there is in Paris a disease very prevalent amongst rabbits, which is always rapidly fatal, which is marked by symptoms very like those following the extirpation of the capsules, and in which those organs are always found after death to be acutely inflamed.

The commission appointed to examine M. Brown-Séquard's statements are—MM. Flourens, Rayer, and Cl. Bernard. Without as yet venturing to adopt his statements in detail, there can be little doubt but that they indicate a general truth (b). The conclusions to which they, taken in connexion with the array of clinical facts previously recorded, point are most comprehensive. In all probability we shall soon acknowledge, in the symptom of bronzing of the skin, a condition attendant only on a certain class of diseases of the supra-renal capsules. These organs must henceforth be looked to in all cases of unexplained death after rapid illness; and there are good grounds for hoping that we shall find in their acute disorganizations the explanation of much which has hitherto puzzled pathologists. Bronzing of the skin, it must be borne in mind, is a change requiring time (in all probability some months) for its production, and can only be present in cases of chronic disease. Its degree probably supplies a pretty accurate measure of the duration of the visceral disorganization. Although its occurrence has been the means of attracting attention to the supra-renal capsules, and of inducing the observations which have demonstrated their vast importance in the economy; and although, as far as facts yet go, there is every reason to believe that it invariably follows the destruction of those organs, provided the patient live for a few months afterwards; yet it must not be forgotten, that it is but one, and in itself comparatively an unimportant one, in a group of connected phenomena. The grand discovery, to which Dr. Addison's labours have led us is, not that bronzing of the cutaneous surface follows on disease of the supra-renal bodies, but that those organs are essential to life, and that their destruction invariably results in a fatal cachexia; that the fatal illness will be long or short, according as the organic disease is of acute or chronic nature; that, whether long or short, it will always be attended by symptoms of peculiar nervous depression and disturbance; and lastly, and as if by way of an independent proposition, that, in those cases which are sufficiently protracted, bronzing of the skin is a constant result. It will save a vast deal of trouble to future investigators in this field, and probably prevent much waste of labour in the citation of seeming exceptions, for it to be at once clearly understood that bronzing of the skin, although, when it does occur, so prominent and striking a symptom is, after all, only an epiphenomenon, and not an essential of the disease.

Jonathan Hutchinson.

(a) Despite this result, there can be no doubt but that, in the human subject, the prolongation of life for a certain period, after the destruction of both capsules by disease, is possible. In several cases recorded in our Series, both organs were found totally destroyed by disease, which must have existed, almost in the state then discovered, for at least some weeks before death. It is not, however, at all improbable but that the slow destruction of an organ by chronic disease might be tolerated much better than its sudden removal while in a state of health. Many facts in pathology would favour such an expectation.

(b) Since writing the above, the *L'Union Medicale*, for Sept. 13, has reached us. It contains the report of a paper read before the Académie des Sciences, by M. M. P. Gratiolet, on the same subject. M. Gratiolet's experiments have been made on guinea-pigs only, and do not appear to have been very numerous. His conclusions are as follows:—

1. After the removal of the left capsule only, the animals recovered, and regained perfect health. In one instance the animal lived two months and a-half, and was quite well when it was killed, by a second experiment.

2. After removal of both capsules, or even of the right only, in all cases the animals died within forty-eight hours, the autopsy showing peritonitis and inflammation of the liver.

From these data he infers that the extirpation of the right capsule is necessarily fatal, attributing its result to the great interference with the liver, peritoneum, etc., involved in the operation. He does not mention the number of experiments tried, or give any information as to the symptoms preceding death. His paper proves only that extirpation of the left capsule is not necessarily fatal; his other inference being, as it appears to us, quite gratuitous.

HOTEL DIEU (NANTES.)

BRONZED SKIN—DEATH—DISEASE OF THE SUPRA-RENAL CAPSULES.

(Case under the care of M. MALHERBE.)

A woman, named Ouvrard, aged 48, was admitted on February 23, 1856. She stated that she had been ill a year, and that she was very weak; but there were no symptoms of organic disease, excepting an enlargement of the cervical glands on the right side. She complained of wandering pains in the limbs and abdomen. There had been some loss of flesh, but the emaciation was not extreme. Her skin generally was noticed to be of a remarkably earthy hue, but there was, nevertheless, an approach to the yellow pallor of some states of chlorosis, or of the last stage of organic disease. M. Malherbe was inclined to attribute the change in colour to general anæmia, and accordingly prescribed a treatment by steel and nutritious diet. A few days after, the occurrence of a severe diarrhœa compelled the suspension of the medicine.

Shortly after her admission, the state of debility, which had previously been very well marked, increased greatly. The pulse, which was slow, became extremely feeble, and the sto-

mach was so irritable, that all articles of food were rejected almost as soon as taken. M. Malherbe states, that it was at this juncture that he, for the first time, became acquainted, through the medium of M. Lasegue's translation in the Archives Générales, with Dr. Addison's observations. On reading the description of the change in colour of the skin which that Physician had observed in association with a peculiar cachexia, he was at once forcibly reminded of his own patient.

On the 12th of March the woman died. By inquiring from her friends, it was now ascertained that her illness had commenced about eighteen months before, and had followed a severe mental emotion, since which she had grown languid and feeble, and her skin previously very white, had acquired a gradually deepening shade of brown.

Autopsy.—The emaciation was not very marked. The smoked (*enfumée*) hue of the skin was rather less deep than it had been during life. It was deeper in the groins and axillæ than in other parts, but is perceptible everywhere. The lymphatic glands in all parts, were almost wholly transformed into masses of tubercle, but they did not form any noticeable swelling excepting in the right cervical and submaxillary region. Some of them were softening, others merely indurated. No tubercle existed in the lungs or any other of the viscera, excepting, as will be mentioned, in one kidney and the supra-renal capsules. The right kidney was somewhat increased in size and slightly congested. The left kidney was contracted and puckered, of scarcely half its natural size, and a grayish colour. Its substance was crammed with encysted masses of tuberculous deposit of variable size. Some of them were of cheesy consistence, others hard, and a few had suppurated.

Supra-renal capsules.—The left preserved its natural shape, but was greatly increased in thickness. In its substance were two large masses of tubercle, not, as yet, commencing to soften. The right organ was completely altered in shape, having assumed that of a cylinder, somewhat tapered at its extremities, and placed transversely over the upper end of the kidney. It was throughout of lardaceous consistence, resembling crude tubercle, and presented also a great number of encysted deposits of tubercle, in a cheesy state, varying in size from that of a millet-seed to that of a pea (a).

THE HOTEL DIEU (PARIS).

BRONZED SKIN AND CACHEXIA—DEATH—AUTOPSY—DISEASE OF THE SUPRA-RENAL CAPSULES.

(Under the care of M. TROUSSEAU.)

The following case is reported by the Physician under whose care it was, in the *Gazette Hebdomadaire* of August 29, having been read before the Académie de Médecine. We have not abbreviated it, and it is to be regretted that more of detail has not been given :—

A man, aged 37, a coachman, was admitted on account of an illness, of which extreme debility and a brown colour of the skin were the chief symptoms. He had been living in a good family, and there had been nothing in the circumstances to which he had been exposed likely to be otherwise than conducive to good health. His wife stated that, for some months past, she had noticed her husband's skin to be of a dirty colour, so much so that she had often charged him with smearing his hands and face with his carriage grease. During about the same period, he had progressively got weak and had also lost flesh considerably. A distaste for all food had been amongst his more prominent symptoms.

Not long after his admission, under M. Trousseau's care, he was seized with diarrhœa, which was followed by a low form of delirium, in which he died.

At the autopsy some scattered deposits of crude tubercle were found in the apex of one lung. Both kidneys were of large size. Both supra-renal capsules were much enlarged and their structure destroyed by a deposit of crude material, which, examined microscopically by M. Brown-Séquard was pronounced to be tubercle. The blood was carefully examined by M. Robin, but nothing more was observed than is usual in cases of extreme anæmia. It should be observed that, in this case, the colour of the skin was such as to have led M. Trousseau, who was acquainted with Dr. Addison's observations, to suspect, during the life of the patient, the morbid conditions found after death.

(a) It is to be much regretted that M. Malherbe does not state whether any part, and if any, how much, of either of the organs retained its normal texture. The measure of the extent of disorganization is the point of first importance in relation to the symptoms during life, and should always be carefully noted. We presume, in the above case, that the right organ was completely destroyed, and the left only partially.

THE ST. LOUIS HOSPITAL (PARIS).

PHTHISIS WITH BRONZED SKIN—DEATH—AUTOPSY—DISEASE OF THE SUPRA-RENAL CAPSULES.

(Case under the care of M. CAZENAVE, reported by M. SECONDFERREOL.)

A man, aged 40, much enfeebled by excesses, had been for some months under treatment on account of gonorrhœa. During the same period he had also suffered from indigestion, and had lost strength rapidly, while his face was gradually acquiring a bronzed tint (*une teinte bronzée.*) Admitted at the Hospital Necker, his chest was examined, and the diagnosis of phthisis formed. At a later period he sought admission at the St. Louis as a case of cutaneous disease. He was then in confirmed phthisis. The skin of his face, hands, penis, and armpits were deeply bronzed (*avec une coloration bronzée très intense.*") Death took place soon afterwards in a state of deep cachexia. At the autopsy the lungs were found scattered with tubercles. The supra-renal capsules were considerably enlarged, traversed by dense filamentous bands, and infiltrated with a fatty material, which, examined with the microscope by M. Robin, was found to consist of oil-globules and pus-cells. The skin, when placed under the microscope, showed a sub-epidermic layer of pigment-granules, like that of the Negro.

THE PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE FIRST HALF-YEAR OF 1856.

The subjoined Report comprises the following Hospitals :—Addenbrooke's (Cambridge), the Cheltenham General, the Cumberland (Carlisle), the Derby General, the Dorset County (Dorchester), the Dundee Royal Infirmary, the Durham County, the Gloucester, the Hitchin General, the Kent and Canterbury (Canterbury), the Leeds, the Leicester General, the Liverpool Royal, the Liverpool Southern and Toxteth, the Margate Sea-bathing Infirmary, the Nottingham General, the Sheffield General the South Staffordshire (Wolverhampton), the Staffordshire, General (Stafford), the Sussex County (Brighton), the West Norfolk and Lynn (Lynn).

LITHOTOMY.

Number of cases, 11 ; recovered, 10 ; died, 1.

Case 1.—Addenbrooke's, Cambridge.—A healthy boy, aged 2 ; symptoms six months ; stone very small ; of lithic acid. Recovery. *Case* 2.—Addenbrooke's, Cambridge : A labourer, in good general health, the subject of stone for twenty years. Twenty years ago he had passed two small calculi, and ever after had suffered from pain after violent exercise, with blood in the urine occasionally. A few weeks before admission he again voided a small calculus. The usual lateral operation was performed, and some difficulty, on account of the large size of the stone, was encountered. The stone weighed more than two ounces and a-half, and had in its longest diameter a circumference of nearly seven inches, that in its smallest being five inches. There was some tenderness over the pubes and fulness of the abdomen for a few days following ; but these symptoms passed, and the man made a good recovery, being quite well in about six weeks. *Case* 3.—Addenbrooke's Cambridge : A labourer, aged 41. in robust health ; symptoms for more than two years, but recently aggravated. A small,

smooth stone, weighing nearly three drachms, was removed. Recovery, without a bad symptom. *Case* 4.—Addenbrooke's, Cambridge: A labourer, aged 54, in good health. Twenty years before he had passed a small calculus, but had had no return of symptoms until within the last eighteen months. A small oval stone, weighing two drachms and a-half, was removed, and he recovered without a bad symptom. *Case* 5.—Leeds: Mr. Smith.—A healthy boy, aged 5; symptoms of stone for two years, but only severe for five weeks. An oxalate of lime calculus, about the size of a garden-bean, was removed. Recovery, without a bad symptom. *Case* 6.—Leeds: Mr. Teale.—A healthy boy, aged 9; symptoms of stone for eight years. Two stones, about the size of large marbles, were removed. Recovered well. *Case* 7.—Leeds: Mr. Teale.—A delicate, puny child; symptoms of stone eleven months. A stone of lithate of ammonia, and the size of a garden bean, was removed. Recovered well. *Case* 8.—Leeds: Mr. Smith.—A healthy boy, aged 5; symptoms of stone fourteen months. A small lithate of ammonia calculus was removed. Rapid recovery. *Case* 9.—Leeds: Mr. Smith.—A healthy boy, aged 5; symptoms of stone sixteen months. A very small calculus of lithate was removed. After the operation he had two rigors, and vomited frequently, but eventually did well. Discharged on the eighteenth day. *Case* 10.—Sheffield: Mr. Gregory.—A healthy child, aged 2. A mulberry-stone, weighing eleven grains, was removed. Recovered well. *Case* 11.—Sheffield: Mr. Gregory.—A man, aged 43, in tolerable health. A triple phosphate stone, weighing half-a-drachm, was removed. Death took place two weeks after the operation, the patient having been comatose during the last two days of life. An autopsy was not permitted.

HERNIOTOMY.

Number of cases, 9: recovered, 7: died, 2.

Case 1.—The Staffordshire General: Dr. Masfen.—A woman, aged 46. Hernia femoral, strangulated sixteen hours, sac opened. The sac contained no fluid whatever: a portion of gut having been returned, the sac itself with a portion of adherent omentum within it, was also pushed up. Rather severe peritonitis followed, and nearly pure blood was passed by stool. The mouth was made sore by calomel, and she ultimately recovered well. *Case* 2.—The Liverpool Southern and Toxteth: Dr. Petric.—A man, aged 21, pale and delicate, Inguinal hernia, twelve hours strangulated, the size of a hen's egg. The sac was opened and found to contain nearly two ounces of serum, and a small knuckle of intestine. Recovered without a bad symptom. *Case* 3.—Addenbrooke's Hospital, Cambridge. A man, aged 20, hernia inguinal, (congenital) strangulated thirteen hours. He had himself applied the taxis with great violence, and the scrotum was much bruised and swollen. An attempt was made in the operation to avoid opening the sac, but the stricture was found to be in the neck of the latter. The sac having been opened, a large coil of very deeply congested bowel was exposed, and some bloody serum escaped. The testicle was found occupying a position within the sac, but little lower than the external ring. The gut and omentum were much swollen, and were returned with difficulty. The bowels acted spontaneously on the third day, and he recovered without a bad symptom. *Case* 4.—The Kent and Canterbury.—A man, aged 66, in good health. Hernia large, inguinal, very tender. Strangulation had existed twenty-four hours. The sac was opened, and the intestines found red but not very dark. Calomel and opium were given, on account of peritonitis after the operation. Recovered well. *Case* 5.—The Sheffield: Mr. Barber.—A man, aged 36. Hernia inguinal, strangulated six hours. The sac was opened. He remained in collapse after the operation, and died about nine hours subsequently. At the autopsy the bowel was found perforated. *Case* 6.—Leeds: Mr. Teale.—A healthy man, aged 55, hernia femoral. The exact period of strangulation could not be ascertained. The taxis had been much abused prior to admission, so that the tumour was red and œdematous. He had constant hiccup, and the abdomen was tense and tympanitic. The sac was opened and the intestine found of a deep purple colour, its peritoneal coat, being, however, still sound. The peritonitis continued after the operation unabated, and death took place on the third day. The autopsy showed evidences of extensive peritonitis, there being much effused lymph. The strangulated portion of gut was gangrenous.

(To be continued.)

NOTES AND QUERIES.

He that questioneth much shall learn much.—Bacon.

No. 126.—German Medical Terms.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—I am in want of a good dictionary of German Medical terms. Can any of your readers give me the title of such a work?

Sept. 12, 1856. I am, etc. T. H. D.

No. 127.—Vicarious Menstruation—Bleeding at the Toes.

Sir,—A curious instance of vicarious menstruation came under my notice lately among the patients at the Northern Dispensary. A young woman, aged 16, presented herself labouring under an anæmic condition, and having a loud *bruit de diable* on the right side of the neck. She stated that she commenced menstruating at 12 years of age, and that her first menstruation and all her subsequent periods were accompanied by an abundant bleeding at the toes, the hæmorrhage proceeding from all the toes except the great toes. At the last period, which had just passed by, the menses had not appeared at all, and the hæmorrhage from the toes had been more abundant than ever. This girl had two sisters, older than herself, but no abnormal circumstances had ever been observed in their menstrual periods.

Many cases of vicarious hæmorrhage in women have come under my notice, but I never before knew a case where the blood came from the toes; and I shall be curious to learn whether many such cases are known to exist.—I am, etc.

8, Torrington-square. Robert H. Semple, M.D.

ANSWERS.

To No. 118.—Treatment of Neuralgia.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—Mr. Saunders' reply to Query 118 is that of a scientific practitioner; but he does not say how we are to detect the peccant part. When the teeth are externally decayed, or the gum inflamed, it is obvious. But I have looked in the mouth, and neither of these affections was present to the eye, though there was the disease. To be certain, tap every tooth smartly with a key or a bit of iron. The moment the affected tooth is touched, acute pain is felt, although those in juxtaposition are quite insensible. If the cause be not in the mouth, and the pain hemispherical, opium is generally a specific.

I am, etc. R. Bradford, M.R.C.S.

To No. 121.—Civilization and Health.

Sir,—"E. H. A." will find some facts bearing upon the solution of his first question in a table at p. 42 of Vol. IX. of the *Journal of the Statistical Society of London*. The table forms part of an essay by Dr. Guy, "On the Duration of Life among the English Gentry," etc.

Medical Times & Gazette.

SATURDAY, SEPTEMBER 20.

THE CASE OF MR. SNAPE.

The Profession throughout the empire will learn with grea satisfaction that the Grand Jury have ignored the Bill preferred against Mr. Snape, for the alleged manslaughter of a pauper patient in the Surrey Lunatic Asylum. But while congratulating that gentleman upon the utter failure of the attempt made to injure him as a Professional man, and to ruin his future prospects, we cannot but feel very deeply for the anxiety he must have suffered, and the pecuniary loss he must have sustained, during the late protracted proceedings. The charge having fallen to the ground, it is unnecessary for him or any of his friends to defend his conduct in the late unfortunate affair; but although he has been honourably relieved

of all blame, he has already suffered an agony of suspense by having his name bandied about in the public voice as an oppressor and a tormentor of those whom it was his duty to protect, and by the prospect (now happily removed) of finding himself placed as a felon at the bar of the Old Bailey. That he would have been acquitted of the charge, we have no doubt whatever: and were it not that he has been spared this additional degradation, we should have rejoiced if he had been able, as we are sure he would, to prove to the public his entire absence of blame in the death of the unfortunate patient, whose case gave rise to the recent inquiry.

In the charge of the Recorder to the Grand Jury, that learned functionary, although evidently impressed with the hardship and cruelty of the accusation, gave his decided opinion that a true Bill ought to be preferred against Mr. Snape; and he supported his opinion by the expression of several of those platitudes and fallacies which we have often had occasion to expose, when treating of the manner in which our own Profession is regarded by the Law. The grand mistake, as it appears to us, is, that the Law regards qualified Practitioners of Medicine and those who are unqualified in almost exactly the same light; or, if there be any leaning, it is generally on the side of the quack. Only last week we had occasion to notice, in the case of a very serious charge against a pseudo-practitioner of Medicine, that the Coroner very plainly gave his opinion, that no criminal accusation could rest against any man, however unqualified, or however gross might be his malpraxis, provided only that no intentional malice could be proved to have actuated his conduct; while in the case of Mr. Snape we find the Recorder of the City of London directing the Grand Jury to find a true Bill against a gentleman of known skill, experience, and humanity, because, in the exercise of his Profession, he had given some directions, in relation to one of his patients, which had unexpectedly been followed by a disastrous result. We may here mention, by way of parenthesis, that we believe the charge of malice hinted against Mr. Snape to be utterly unfounded; and that, in ordering the use of the shower-bath, he was actuated by no vindictive feeling whatever. and was solely guided by what he thought to be a proper measure under the peculiar circumstances of the case.

Now let us observe how differently the Law regards the members of its own calling, when brought into contact with the public. Does the Law permit any unqualified person to act as a Barrister or a Solicitor, and to extract money from clients under the pretence of conducting their legal affairs? No; such conduct would bring down upon the offender the heaviest penalties. In such a case, would any Barrister be hardy enough to rise and defend the illegal practitioner and uphold free trade in law? No; such a thing has never been heard or dreamed of. Again; if some barrister in large practice, either by error in judgment, or by neglecting to appear in Court at the proper time, or by any other cause, endangers or ruins his client's case, is he ever dragged before the Old Bailey, or any other tribunal, to answer for his delinquency? No; in such a case, Judges, and Counsel, and Attorneys, would all join in defending their brother, and popular clamour, if any were raised, would be speedily hushed. But in our Profession, the double anomaly is permitted to exist, of allowing unqualified pretenders to usurp, in safety, our places in public confidence, and on the other hand, when a duly educated man commits, or is supposed to commit, an error in judgment, of dragging him, as a felon, before the bar of criminal justice, in company with murderers, swindlers, and thieves.

The Commissioners of Lunacy, in instituting a criminal prosecution against Mr. Snape, have, in our opinion, over stretched the boundaries of their duty. Without defending the practice of employing such a shower-bath as we understand is in use at the Surrey Asylum, we may remark that the Commissioners had ample opportunities of inspecting the machine, and, probably, superintended its construction; and when it is admitted that the shower-bath, in itself, is a valuable adjunct in the treatment of violent mania, and that this particular shower-bath was used under the control of the Commissioners, the question affecting Mr. Snape is narrowed into the point, as to whether, in an individual instance, an unforeseen result followed upon its use. Now if the Medical Superintendent of an Asylum, or indeed the Physician or Surgeon of any establishment, is to be held criminally responsible for every unfortunate case which happens under his care, no member of our Profession is safe, and the exercise of our calling must be a source of constant apprehension, lest some of our remedial measures should become, under some of the mysterious and often inexplicable decrees of Providence, the sources of danger and fatality. It is on these grounds, that, in the name of our common Profession, we protest most energetically against the prosecution, or rather we should write persecution, of Mr. Snape; and considering the agony of mind and the heavy pecuniary loss which he has endured, it is but poor satisfaction to him that the Grand Jury have found the accusation against him to be groundless.

We wish we could divest ourselves of the impression that Mr. Snape has not experienced at the hands of some of his Professional brethren and colleagues that amount of sympathy and support to which he was entitled; but over this portion of the history we willingly draw the veil, and we express our earnest hope that all parties will concur in helping to restore Mr. Snape to the position in his Profession and in society which he has only temporarily lost.

THE WEEK.

In a recent Number of one of our contemporaries, a Medical gentleman, engaged in the treatment of mental disorders, publishes a paper on "Moral Idiocy," in which a strenuous attempt is made to prove that William Dove, who poisoned his wife by strychnia, was insane; and it is shown to the author's own perfect satisfaction, that all the writers in the daily and Medical Press (including ourselves), who adopted a different opinion, are entirely mistaken. The paper, which is now printed, was read to the meeting of the British Medical and Surgical Association on the 31st of July last, and only a few days afterwards, William Dove gave the most complete contradiction to his own champion by making a full confession of his guilt, and proving to the satisfaction of every unbiased person his perfect sanity. It is a circumstance which almost verges upon the ridiculous, for an author to publish a paper, after the views which it advances have been entirely falsified by the chief person whom the arguments were intended to exculpate. It is absurd enough to endeavour to make William Dove the object of compassion; but it is doubly so, after he himself has admitted his criminality and the justice of his sentence.

Considerable excitement has been created in the public mind by the alleged flogging of some women in the Marylebone Workhouse: and the investigation which has been conducted by the Poor-Law Board has revealed a lamentable amount of tumult and insubordination in that establishment. It does not appear that the women on whom the punishment was inflicted, are entitled to much sympathy; but the Poor-Law Board, taking into consideration all the circumstances of the case, have proposed to issue forthwith to the parish of Marylebone, rules and regulations similar to those enforced in most of the workhouses of England and

Wales. In other words, this great parish, which has hitherto governed its poor by the powers conferred by a Local Act, will now be compelled to submit to the control of the Poor-Law Board. The directors of the poor of the parish of Marylebone are of course indignant at this invasion of their prerogative, and have, in one of their resolutions, defied the power of the Central Board; but whatever may be the popular outcry against Centralization, there can be no doubt that, under the Poor-Law *régime*, both the poor and the Medical Officers will be greatly benefited. The Poor-Law Board is at least responsible to the nation through their President in the House of Commons, and the complaints of Medical Officers or of the meanest pauper, whether redressed or not, may at least *be heard*; while the local boards (and that of Marylebone is by no means the worst,) are responsible to no authority except the public-house *coteries* by which they are often elected, and are frequently able to stifle inquiry altogether, and thus escape public indignation.

A lamentable instance of poisoning by mistake, or rather by gross carelessness and incompetency, has just occurred at Weymouth, the particulars of which will be found in another column. A lady sends her servant to the shop of a druggist, with a written request for an aperient draught for her boy of eleven years old. The druggist himself is not at home, but two youths, the one aged twenty, the other aged thirteen, are left to conduct the business in his absence. The junior of the two is directed to prepare a "black draught," and he ignorantly takes down the bottle containing the "black drop," which, we need not inform our readers, is a strong preparation of opium, and fills with it the phial intended for the patient. The mother of the ailing child administers the poison unconsciously, and the unfortunate victim falls into a sleep from which he never wakes. Surely an instance like this, together with many others which have recently occurred, must open the eyes of the members of the Legislature to the necessity of regulating the sale of drugs by some stringent enactments, and of preventing the handling of poisons by any other than competent persons. It is quite monstrous that a potent medicine like the spirituous solution of opium should be left under the charge of a boy of thirteen, who, under any circumstances, must be ignorant of its nature and properties, and who ought not to have been allowed to handle drugs at all. To make the boy criminally responsible for the death of the poor child, would be simply absurd: the blame rests with those who left the charge of potent medicines in incompetent hands; and a heavy weight of blame will rest on the breasts of those who have the power, and do not exercise it, of checking an evil which threatens to assume a gigantic magnitude, if not speedily and effectually controlled. While our laws carefully protect the property of the public, and the robbery of a pocket-handkerchief is severely punished, the most reckless waste of human life, by the indiscriminate sale of poisons, is daily permitted, and the remonstrances of the Medical Press are allowed to pass unheeded; but we hope that the time has now arrived when such anomalies can no longer escape correction, and when a more healthy and rational system may replace the present apathetic contempt, on the part of our rulers, for all that relates to the lives and the health of the community.

The *Times*, which does not indulge, except occasionally during the Parliamentary vacation, in the discussion of intra-professional topics, has lately printed some letters upon the present rivalry existing between Druggist-Doctors and Doctor-Druggists. The first writer, who is a druggist, traces all the present evils to the abandonment of shop-keeping on the part of the Apothecaries, and to the entire absence of all control over the Pharmaceutists; and he advises that Medical Practitioners ought now altogether to cease from supplying Medicine; while the second writer, who is a Medical man, thinks that ladies ought not to send for black draughts to the druggists, but to the Medical Practitioner, who is alone qualified to determine the kind, and nature, and dose of the purgative. A third writer, who signs himself "A Perpetual Curate," is strongly in favour of the plan at present adopted by the General Practitioner, and repudiates "the Physician, his prescriptions, and his fee." The question is a social one, the solution of which is attended with very great difficulty; but it must be admitted, that while some of the members of our Profession keep open shops for the sale of articles which are usually sold by the druggist and perfumer, so long will the druggist invade the province of the Medical man by giving advice and medicine, to as great an extent as he is able without provoking the penalties of the law.

It will be seen by reference to our advertising columns, that a most handsome Testimonial has been presented to Dr. Joseph Bullar and Dr. William Bullar, by the inhabitants of Southampton and its vicinity, in token of the high esteem which is entertained for the private worth and public services of those gentlemen. We have so often had, in the exercise of editorial duty, the painful task of exposing the ill-treatment to which too many of our Professional brethren are subjected, that we are most happy to record an instance of a totally contrary character; and we hope that the Messrs. Bullar will long live to remember the kindness of their Southampton friends, and to enjoy the well-deserved honour which they have just received.

REVIEWS.

The Treatment of the Insane without Mechanical Restraints. By John Conolly, M.D. Edin., Hon. D. C. L. Oxon., &c. London. 1856. pp. 380.

Dr. Conolly's work is both a description, a vindication, and an historical sketch. "I am anxious," he says, "in these pages to explain as distinctly as I am able, the nature, as well as the rise and progress of that method of treating the insane, which is commonly called the Non-Restraint System; so as to contribute to its preservation and further improvement, and perhaps to its wider adoption; or at least to prevent its being abandoned, or imperfectly acted upon or misrepresented, when those by whom it has been steadily maintained in its early days of trial and difficulty can no longer describe or defend it."

From the earliest periods, the treatment of lunatics, always barbarous, seems to have gone on from bad to worse up to within the last fifty years.

"Up to the middle of the last century, and in many countries much later, harmless maniacs, or those supposed to be so, were allowed to wander over the country, beggars and vagabonds, affording sport and mockery. If they became troublesome, they were imprisoned in dungeons; whipped, as the phrase was, out of their madness—at all events subdued; and then secluded in darkness in the heat of summer and in cold and darkness of winter, and forgotten and always half famished—often starved to death."

"At length the condition of the mad obtained some attention, and then massive and gloomy mansions were prepared for them. These were but prisons of the worst description. Small openings in the walls, unglazed, or whether glazed or not, guarded with strong iron bars; narrow corridors, dark cells, desolate courts where no tree, nor shrub, nor flower, nor blade of glass grew; solitude, or companionship so indiscriminate as to be worse than solitude; terrible attendants armed with whips, and sometimes (in France) accompanied by savage dogs, and free to impose manacles, and chains, and stripes at their own brutal will; uncleanliness, starvation, the garotte and unpunished murders; these were the characteristics of such buildings throughout Europe."

"It would almost seem," adds Dr. Conolly, "as if from the middle to near the end of the last century, the superinten-

dants of the insane had become frantic in cruelty, from the impunity with which their despotism was attended. Some of the German Physicians meditated even romantic modes of alarm and torture, wished for machinery by which a patient just arriving at an asylum and after being drawn with frightful clangour over a metal bridge across a moat, could be suddenly raised to the top of a tower and as suddenly lowered into a dark and subterranean cavern; and they avowed that if the patient could be made to alight amongst snakes and serpents it would be better."

Such were the means taken to control mental excitement; while bodily restlessness was controlled by every kind of cuff, strap, manacle, muff, hobble, and harness, that could be devised. But a salutary change was at hand. In France, the illustrious Pinel became Physician to the Bicêtre in 1792; "and with him entered," says his affectionate eulogist (Pariset), "pity, goodness, and justice." In England the work of reformation was due to the Society of Friends. A female patient of the Quaker persuasion was placed in the York Asylum, one of the most abominably ill-conducted possible. The patient died suspiciously; and the Society, with great sagacity, instead of denouncing the guilty parties, resolved to establish an Asylum of their own—the now famous Retreat at York—where, under the auspices of William Tuke, every enlightened principle of treatment was carried into effect.

"All of us," says Dr. Conolly, "who have followed in the path of William and Samuel Tuke, at however great a distance, must ever gratefully acknowledge the extent of our debt to them. It is true that neither they nor Pinel ventured wholly to abolish mechanical coercion. This was left for Charlesworth to attempt, and for Gardiner Hill to carry out at Lincoln, and for Hanwell to confirm on the largest scale."

The reforms in the constitution of Asylums involved not merely requisite attention to the physical and moral treatment of patients; but also the entire substitution of moral and gentle means for mechanical coercion in any shape. But the introduction of such a reformed plan of treatment involves great trouble and cost, and was long sedulously withstood by some public and by most private Asylums. Even now, there are advocates for the partial use of restraint. "But," as Dr. Conolly observes, "no fallacy can be greater than that of imagining what is called a moderate use of mechanical restraint to be consistent with a plan of treatment in all other respects complete, and unobjectionable, and humane. The abolition must be absolute, or it cannot be efficient." If hands and feet were allowed to be bound at the will of the attendants, habits of neglect and tyranny will be engendered, and restraints become substitutes for attention, patience, forbearance, and proper superintendence.

It only remains for us, compatibly with the space at our disposal, to recommend Dr. Conolly's work to all who would trace the steps of this great and most humane improvement in the treatment of insanity, and who desire to know the details to be adopted, and their result. It contains extracts from the original reports of his own proceedings at Hanwell, where we need scarcely tell our readers the benefits of the Non-Restraint System were largely carried out, and the system established by fair and open trial.

A Treatise on Cancer of the Breast and of the Mammary Region. By A. Velpeau, Member of the Institute, Surgeon to the Hospital de la Charité, Paris. Translated from the French, by W. Marsden, M.D., Surgeon to the Royal Free Hospital, and Cancer Hospital. London. 1856. Pp. 293.

In opening a new book on the subject of this mysterious and most fatal disease, the practical Surgeon eagerly turns over its pages to seek replies to the three great questions, What is cancer? What is its cause? and, How can it be cured? If the work of M. Velpeau fails in answering either of these questions satisfactorily, after the immense mass of experience and observation which he has accumulated during the thirty years in which he has been working at the subject, it is because the difficulties of the investigation have baffled our Continental brethren as well as ourselves.

In reply to the question, *What* is cancer? M. Velpeau, like most practical Surgeons, is not disposed to grant that microscopic appearances can be relied on. On the contrary, he asserts that the so-called cancer-cell may be found in tumours that are not cancerous, and that it may not be found in tumours that are; and that the so-called cancerous cellule is not the specific element of cancer. He relies on the well-known clinical marks for his diagnosis; the power of moving the skin over a tumour; its adherence or not to neighbouring tissues; the presence of glandular enlargement; and confesses, in the early stage of tumours affecting the gland-substance by hypertrophy, "that in certain cases these two kinds of tumour cannot readily be distinguished, and that their confusion, almost inevitable at their commencement, takes away the right to deny absolutely the possibility of the transformation of the hypertrophic tumour into a true scirrhus."

We cannot pass over this part of the matter without observing, that if micrographers have erred egregiously on the one side, so have Surgeons on the other. Each has started with an hypothesis which required to be coolly and deliberately tested by matter of fact. The hypothesis of the micrographers was the doctrine of homomorphism and heteromorphism; in other words, the belief that cancer was composed of elements utterly foreign to the animal body in any stage of its development; that the destructive or malignant properties of cancer were due to this heteromorphism; and that tumours composed of elements natural to the body, as the epithelial, were not malignant. Ruthless observation has dispelled this error of the micrographers, and has shown, that epithelial tumours, although homomorphous, may be as malignant, or more so, than true scirrhus.

The false hypothesis of some Surgical writers, or rather, perhaps, the want of logical precision which they evince, is this,—they assume that, because cancer is malignant, therefore, every malignant disease is cancer. Because a certain disease may be equally destructive, and much after the same fashion, they reject as worthless the absolute facts demonstrated by the microscope, of the immense structural difference in cancer—the epitheliomatic, the fibroplastic, and the other tumours which M. Velpeau masses under the names *adenoid*, *choridroid*, etc., and they assert that every tumour, no matter what its structure, is cancer, if malignant. This is equivalent to classing all malignant fevers as one disease. We believe that the true solution of this confusion has been pointed out in the seventh edition of Dr. Druitt's "Surgeon's Vade-Mecum;" and that it will be found that every kind of tumour whatever has some malignant characters, while cancer has every malignant character; and yet that tumours ought to be carefully separated and classified according to their microscopic distinctions, and nothing be called cancer, merely because malignant, unless it has cancer structure.

On the question of the cause of cancer, M. Velpeau reproduces the old doctrine that it results from the transformation and development of some small sanguineous or fibrinous exudation, produced, in all probability, by external violence. "But, if it be asked," he says, "how it happens that an external violence gives rise to a cancer rather than to any other morbid production, and how a similar matter, an entity so complete, so clearly defined, can be the consequence of a common action—how a *specialty* so manifest can result from a phenomenon which has nothing specific in it? To this I have nothing satisfactory to reply. I am the first to feel it; but the veil with which all these questions appears to be enveloped, covers many more in pathology, without science occupying itself seriously with them."

As to cure, it is easily summed up—Leeches, iodide of potassium, mineral waters, etc., if the tumour be doubtful; if it be not doubtful, early operation, before the economy has become infected.

As for the translator, he tells us that he is himself preparing a work on cancer, and that he refrains from adding any notes to the work before us, lest the interests of his own forthcoming labours should be diminished. "Besides," he modestly adds, "the name of M. Velpeau is a sufficient recommendation in itself to any work." We confess that we cannot see what motives can have induced him to undertake the task of translation. Possibly he is so good a French scholar, that his thoughts naturally flow in French phrases. Be this as it may, a good French scholar may, perhaps, understand this translation; an ordinary reader will be puzzled.

For example, let us suppose a student trying his hand at the following definition:—

"I. *Ligneous or Hard Scirrhus.*—I give this name to a kind of tumours the dominant character of which is, the density, the inextensibility of wood, to be without fixed limits, and to

be continuous, without a line of demarcation; appreciable, with the neighbouring tissues—"

If the reader understands French, he may mentally retranslate it into that language, and get at the meaning of it. Otherwise the preposterous punctuation (which we quote carefully) and the violation of all English idiom must render it almost unintelligible.

Disorders of the Blood. By Julius Vogel, M.D. Professor of Clinical Medicine in the University of Giessen. Translated and edited by Chunder Coomar Dey, Graduate of the Medical College of Bengal. Pp. 219. Calcutta: 1856.

This work is a translation of the article entitled "Störungen der Blutmischung," which forms the fourth section of Virchow's "Handbuch der Speciellen Pathologie und Therapie." It gives an excellently condensed account of Blood-diseases, and deserves to be extensively known throughout Great Britain and its dependencies by the medium of the English language. It displays a profound acquaintance, on the part of the author, with Chemistry and Pathology, and is distinguished, moreover, by great powers of observation, and an absence of vague speculation, into which some writers on the Diseases of the Blood have been too often led.

The translation does very great credit to Mr. Chunder Coomar Dey, who is, we believe, a native of India, and who is a Graduate of the Medical College of Bengal. He apologizes, in a very modest preface, for the imperfections of his attempt to anglicize the work of the distinguished German pathologist: but his apology is hardly necessary, as the translation is throughout very correct, and might have been written by an English author. We are happy to notice Mr. Chunder Coomar Dey's effort in such terms of approbation, and hope that it will serve the double purpose of extending the views of Vogel throughout the Profession in India, and of stimulating the native students and Graduates in Medicine to similar praiseworthy attempts.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ALARMING SYNCOPE AFTER THE APPLICATION OF CHLOROFORM TO THE UTERINE REGION.

By Dr. CLEMENS.

Dr. Clemens relates two cases, in one of which, on account of excessively severe pains prior to delivery, and in the other, for the purpose of facilitating the removal of the pleura, chloroform was applied to the hypogastric region, and in both with the effect of inducing alarming syncope. Although these patients were both under powerful moral influences that may have contributed to the effect, he is of opinion that the external application of the chloroform was the active agent in its production, and recovery was only obtained by discontinuing the application, and resorting to active stimuli. He was the more surprised at this result, as he has been for years in the habit of employing chloroform profusely in acute rheumatism, using as much as 6, 8, or 10 ounces, in the twenty-four hours in bad cases: the parts covered with it lying in a complete chloroform vapour bath, the clothes being tucked in all around, and the head and neck well exposed to freely admitted air. In such cases he has never seen narcosis produced, and has never met with syncope before even in the most sensitive persons, although employing the chloroform in hundreds of cases of spasm, inflammatory pains, &c. The syncope might be supposed to be due to the hæmorrhage, which, in both cases, came on immediately after the application of the chloroform; but in neither was it sufficient to explain the occurrence. In both, the expression of countenance, too, was so peculiarly distressing, and the cessation of the action of the heart and of respiration so sudden, as to indicate the special action of the chloroform; and in both cases the patients perceived a feeling of debility immediately that the application was commenced. The author feels convinced that had this been continued, the worst consequences would have ensued, and that inhalation in such subjects would have been followed by speedy death. The rapid relaxation of the uterine fibres, attended with immediate cessation of the pain, and commencement of hæmorrhage, shows how speedy and powerful was the influence of the chloroform upon the abdominal nervous system in both these cases. And this is the more remarkable, as every Practitioner, accustomed to employ it, is aware that severe pains or stricture of the uterus will resist chloroform for a very long period. Dr. Clemens, indeed, recently met with a case of *placenta incarcerata* that required the persevering internal and external use of chloroform during four hours.

Monatsch für Geberts. Band VII. p. 39.

ON THE CONTRACTILITY OF TENDONS.

By M. GUERIN.

In this memoir M. Guérin calls into question the accuracy of the doctrine which regards the tendon as a mere passive instrument for the transmission of motion. He has long been of opinion that it is possessed of contractility, although of another description to that inherent in muscular structure. He thus sums up the results of his observations:

Histological facts.—M. Guérin long since demonstrated that, under certain determinate conditions, such as constant and excessive tension, a muscle may pass into the fibrous state, resembling, in every histological particular, its tendon, of which it now forms but a mere prolongation. Able microscopists have repeatedly found themselves quite unable to distinguish between the two. From this identity of structure he was led to infer identity of function. Moreover, he, as well as other surgeons, had observed that muscles, evidently in a fibrous state prior to an operation, the result of which was the restoration of their normal length and tension, frequently, in the course of years, or even of months, regain their fleshy condition.

2. *Pathological facts* enable us to establish directly the conclusions proceeding from the above induction. In 1840, M. Guérin first proved that tendons are susceptible of a special retraction, independently of the muscle properly so called; that is to say, that they may become and remain shortened, as a consequence of a kind of spasm limited to their sphere of action. This, besides being met with in various lesions implicating only the tendons (as in certain burns, abscesses, etc.,) is of frequent occurrence, and easy to recognize in rheumatic and scrofulous affections of the joints. The anatomical character of tendinous retraction, distinguishing it from the retraction of the muscle properly so called, is the diminution of the length of the tendon in relation to the muscle, which preserves its normal length. The contrary takes place when the muscular fibre primarily participates in the retraction, or is its principal seat. The retraction originates in a lesion and pain localized near the insertion of the tendon, as in certain arthralgias, under the influence of which an attitude of the joint is assumed in relation to the action of the shortened tendons, without participation of the muscles properly so called. Such attitude has been supposed to be assumed voluntarily in order to obtain relief from pain; but an inspection of the special directions imparted to the parts shows that these much oftener relate to the isolated action of this or that tendon, than to the collective action of the muscles that move the joint. This retraction, as in the case of that of muscles, is but the pathological expression of a physiological property possessed by the tendons.

3. *Physiological facts.*— The tendon of the patella is separable into two distinct portions, just as if they were separate tendons, which may be termed *infra*-patellar and *supra*-patellar tendons. It happens not infrequently, as a consequence of disease, that the patella becomes anchylosed, or fixed to the femur, isolating from the muscular extremity of the tendon, the contraction proper to the latter. On observing what takes place in such persons, during efforts to raise the limb, we find that, at the same time, the extensor muscles of the thigh contract, the infra-patellar tendon,—*i. e.*, the portion situated between the immoveable patella and the tibia participates in this contraction, becoming sensibly hardened and shortened, both to the touch and sight. We may, indeed, observe upon ourselves the contractions of this infra-patellar tendon during certain attitudes. If, while in the sitting posture, we place our fingers along its track, we find it become distended and hardened during every effort made to raise the leg, still keeping it at the same degree of flexion, the patella remaining immovable and strongly applied against the femur.

4. *Nature of the contractility.*—The contractility of tendons is not identical with that of muscles, for it cannot be induced by galvanism. There are, too, other contractile organs, not

excitable by galvanism, such as the *dartos*. The muscles themselves present sometimes an exceptional state; for, after saturnine paralysis, they continue to contract under the influence of the will, but are completely insensible to the influence of galvanism. By means of two experiments, M. Guérin endeavours to point out the limits of both muscular and tendinous contraction; and he considers that the latter comes into operation when the weight of the body to be moved induces resistance. Hence he terms this tendinous contractility the *contraction de résistance*, indicating thus its true experimental character, and its difference from voluntary contraction.—*Gazette Médicale*, No. X. 1856.

GENERAL CORRESPONDENCE.

CHLOROFORM IN NORMAL LABOUR.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your last number, page 271, containing Professor Scanzoni's views and experience of chloroform in midwifery, it is stated that in normal labour, "chloroform imparts a decided inclination to hæmorrhage during or after the fifth stage of labour, against which the administration of ergot, shortly prior to the expulsion of the child, does not offer any certain security." In justice to me, may I beg that you will permit me to state that this has previously been noticed by me in my work, "Aids during Labour," p. 35. In considering muscular action and the circumstances affecting it, I have remarked—"But it may be said, with an increased amount of relaxation existing in women in a state of civilization, you give chloroform, which you admit increases relaxation. I believe that this is the only feasible objection to its use, for relaxation would favour the occurrence of hæmorrhage. I think it does increase the tendency of the latter; for, although the effects of chloroform soon subside, a state of relaxation continues, but far less in degree than what would result from the exhaustion of a severe labour, or from the nervous shock arising from the agonies endured. Certainly, in first deliveries, I have met with more cases of post-partum hæmorrhage with chloroform than without it."

The *Dublin Quarterly Journal* for February states, "Dr. Pretty considers that it increases the tendency to post-partum hæmorrhage, contrary to the experience of Simpson, Murphy, and others; but this is of less consequence, as he has a means of controlling such an occurrence."—P. 195. I have also stated that one of the ways in which chloroform aids natural labour, I believe to be "from generally relaxing the tissues. Its valuable and marked effect in relaxing a rigid os uteri, or unyielding perinæum, confirms this view of its action." *En passant*, I may remark that the *Dublin Quarterly* printed "relieving" for "relaxing," among other mistakes, which materially affects the force and meaning of one's views. What relaxes the tissues generally, must more or less influence the uterus.

In such a case ergot is not the remedy for hæmorrhage; on the contrary it would be pretty sure to increase it. Perhaps no greater misconception exists on the properties of any drug than on ergot, nor probably is one more frequently incorrectly given. I am not aware that this has been clearly pointed out previously to my doing so in the same work, page 172. It is there stated that "ergot of rye is a valuable or injurious remedy, according to the circumstances under which it is administered. It has a specific action on the uterus, and a depressing one on the heart." Again, "it is contra-indicated in the depression and nervous exhaustion induced by flooding, and probably in irregular contraction of the uterus." "When chloroform has been administered, it would be well, as a general rule, to avoid giving it." Ergot, by increasing the depression of the heart, when it already exists, would thus increase, instead of stopping the flooding. To avoid this tendency to depression and hæmorrhage, I have, in rule XI. for the administration of chloroform, written—"Give some stimulant, from time to time, as may be judged admissible, especially if vertigo or weakness be complained of, even if the pulse do not alter in its character."—P. 87. A stimulant is as good a remedy against undue relaxation and hæmorrhage, as the ergot would be the reverse.

It would have been more satisfactory if the mode and degree of administering chloroform, as well as the quantity of it ordinarily used by Professor Scanzoni, had been mentioned, as his experience of its effects in natural labour is greatly at variance with that of some of our accoucheurs. From his remarks, it may be inferred that he gives a much larger quantity than is considered here necessary, which would seem to account for this discrepancy, and his objection to its use in normal labour. I am, etc. J. R. Pretty, M.D.

31, Bayham-terrace, Camden-town, Sept. 13, 1856.

UNQUALIFIED PRACTITIONERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your Number for the 6th of September, 1856, I noticed that an official communication had been made to the Governor and Company of the Dublin Apothecaries' Hall, to the effect that the Government was prepared to submit to the Attorney-General for Ireland the names of such persons as should be returned to them by the Hall as infringing the Act of 31 George III. c. 34, together with such proofs as might be sufficient to establish the fact of the violation of the law. It was further suggested to the Governor and Company that a correct list of their Licentiates should be forthwith published, and supplied to the magistrates and police authorities throughout the country, in order that the names of offenders might be immediately ascertained.

This is certainly a move in the right direction; and, if similar steps were taken by the London Apothecaries' Society, it would most assuredly tend to put a stop to illegal practice more than anything that has yet been done.

During the present year, the kingdom has been agitated from one end to the other respecting Medical reform.

What the Profession needs most is, a protection against illegal Practitioners. Give us that, rid us of all those who are practising without any qualification whatever, in swarms. I say, rid us of these ignorant pretenders, and I will answer for it that nine-tenths of the Profession will be satisfied.

Hoping you will give these few remarks insertion in your next number, and that the attention of the Society of Apothecaries may be directed to the subject, I am, etc.

Medicus.

Chester, September 16, 1856.

A NEW RETRACTOR.

[To the Editor of the Medical Time and Gazette.]

Sir,—Under the heading of "New Instrument," in your last Number, is the description and diagram of a "new form of retractor for use in excision of joints." I beg to inform you that this new instrument has been supplied by me to Guy's and St. Thomas's Hospitals, six years ago, and that Mr. Simon has had one in his possession for a much longer period. It is rather unfortunate that this instrument should be introduced as *new*, when my improvement of the "Dublin Saw" renders it obsolete. I am, etc.

9, St. Thomas's-street, Borough. Henry Bigg.

REPORTS OF SOCIETIES.

CRIMEAN MEDICAL AND SURGICAL SOCIETY.

March 20, 1856.

Dr. Williams, Vice-President, in the Chair.

(Concluded from page 273.)

The next case was one of excision of the internal condyle of the humerus:—

Private T. B., 9th Regiment, aged 30 years, was wounded on the 8th of September, 1855, by a musket-ball in the left elbow, which fractured the internal condyle of the humerus, and also wounded the joint; he at the same time received a severe bruise on the left hip from a splinter of a shell. The bullet and some small pieces of bone had been extracted in the trenches, and on examination some time after at the Hospital, Mr. Thornton decided on saving the limb, supporting it on a splint, dressing the wound with lint and kept moist with

cold water. On the 10th, severe inflammation of the joint set in, with much swelling, and considerable constitutional disturbance. On the 11th, the fourth day, the febrile symptoms were less, but swelling and pain had much increased, while the skin round the wound had a mottled appearance, as if threatening gangrene. Chloroform having been administered, Mr. Thornton made a free incision in line with the humerus down to the bone, at the same time laying open the joint, and exposing the fracture. He then removed all the broken portions of the internal condyle; the other portions of the joint were uninjured; there was much hæmorrhage during the operation from the distended state of the vessels, but there were no ligatures required, and the ulnar nerve was untouched. The edges of the wound were then brought together, and a few sutures applied; the arm supported by an angular splint placed on the outside, and plain cold water dressing applied to the wound. The swelling, which had been so considerable previous to the operation, had all subsided ere it was completed. From this time the limb and his general health steadily improved, and he was invalided to England in November last, in consequence of the reduced motion of his elbow. However, the amount of motion was steadily increasing, and when he left he could extend his arm to within one-third of its natural motion. This was to Mr. Thornton a very satisfactory case, from his being enabled to save the limb, which at one time appeared to be very doubtful. He believed that the external condyle had been removed several times, but he had not heard of the internal condyle having been excised on any previous occasion, and it is the only case recorded to have taken place in the Crimea. Considering how important the internal condyle is to the integrity of the elbow-joint, Mr. Thornton was agreeably surprised to find that the motion of that joint had not been more affected by the operation. He should have been perfectly satisfied with the success of the operation had the patient recovered with stiff joint; and he must acknowledge that it was very gratifying to watch the gradual improvement in the movements of the joint.

The third case is one of excision of the elbow-joint, performed on the 19th of June, in the General Hospital, by Mr. Wyatt, Coldstream Guards, who had kindly given me the notes of the case:—

Private J. O'B., 44th Regiment, received a comminuted wound of the right elbow in the attack on the Redan on the 18th of June, aged 26 years, of a healthy constitution. A Minié ball had entered on the inside of the joint, between the olecranon and internal condyle, comminuting both and dividing the ulnar nerve; it then passed through the arm about two inches above the joint; the external condyle was fractured and detached from the humerus, and the heads of the radius and ulna were also communuted. The artery was uninjured; the internal wound was much lacerated; and the bullet, which was much compressed, lodged in the cloth of his coat on the outside of his arm. Altogether it appeared a good case for excision of the elbow-joint, which operation, with the concurrence of Drs. Taylor and Mouat, was performed by enlarging the internal wound in a semilunal direction upwards and outwards. The lower end of the humerus was then thrust backwards through the wound, and two inches of its extremity sawn off. The soft parts were then detached from the upper end of the ulna, and that bone divided just below the coronoid process. The articulating cap of the radius was also sawn off just below the tubercle, so as to preserve the attachments of the tendons of the biceps muscle, and cold water dressing applied, the arm being placed in a semiflexed position. After some days pyæmia set in, and he died on the 25th of June.

The last case he would read was that of excision of the hip-joint, performed by Dr. O'Leary, 68th Regiment. This, as being the only successful case, he would give the notes in full, as supplied by Dr. O'Leary.

Case of excision of the hip-joint, 68th Regiment:—

Private Thomas M'Kenna, 68th Light Infantry, aged 25, was admitted into hospital on the 19th of August, 1855, from the trenches, where he was struck by a fragment of a shell over the great trochauter of the left femur. The wound, which admitted of the introduction of the fore-finger, extended down to the bone, and at the bottom of it some scales of osseous structure, lying loose, could be felt. From the examination it was evident that the neck of the bone was fractured, and on the following day it was decided to excise the joint. The man was placed under the influence of chloroform, and excision carried down along the shaft of the bone which was separated from its attachments, and sawn off about an inch below the lesser trochanter. The head of the bone was, without difficulty, removed from the acetabulum. The man lost a considerable quantity of blood, although no vessel required a ligature. When the operation was completed, the edges of the wound were brought together by the interrupted suture, and a bandage applied. The leg was swung in a sling of strong canvas from a beam over his cot, the heel being considerably elevated, and the injured limb slightly abducted. This method of treatment was adopted with a view to encourage approximation of the upper end of the shaft of the bone to the acetabulum, and by pressure on the under surface and sides of the limb to prevent the accumulation of matter among the tissues. When the injured parts were removed, it was found that the fracture extended obliquely downwards, between the trochanters and upwards, to within half-an-inch of the cartilage covering the head of the bone. Although the man's pulse for several weeks did not fall below 100, the functions were healthily performed, he slept well, ate with appetite, and was cheerful throughout. His diet was generous and varied, and a liberal supply of wine was allowed him. At the end of the twelfth week he was able to leave his bed, and move about on crutches; and on January 16, 1856, he was transferred to a ship about to proceed to England with invalids. When he left the camp the wound was firmly united, two small sinuses only existing, which admitted of the introduction of the director, and which discharged a very small quantity of thin purulent matter. He was gradually regaining power over the limb, and was able, to a limited extent, to flex the leg upon the thigh, and the thigh upon the pelvis. Shortening to about five inches, and very slight inversion, were the chief deformities consequent upon the operation. In an injury of this nature, where so great an extent of bone required removal, and particularly of that portion which gave insertion to so many of those muscles which are chiefly employed in the abduction of the limb and in its rotation, it is scarcely to be expected that a free use of the leg can result. However, it may be hoped, that, with the use of a boot having a thick sole, and a high heel of some light substance, this man will, in the course of time, be able to move about with the support of a single stick. The apparatus employed in swinging the limb was made of strong sail-cloth, and extended from the natis to the malleoli. Its long edges were turned down into deep hems, through each of which was passed a piece of wood rounded, and of about half-an-inch in diameter, the extremities projecting two inches. Two pieces of pack-line, each a yard long, were attached by a loop to the ends of the rods; and to the centre of the cords was knotted another line, which passed over a beam, and was secured to the bedstead on which the man lay, to prevent lateral motion; and to preserve abduction, at a fixed angle, the lower ends of the pieces of wood were attached to the cots on either side. The use of an air-bed prevented the formation of bed-sores.

Doctor O'Leary's case speaks for itself. It may be asked why, in speaking of the success of excisions, that he brought forward two cases that terminated fatally, simply that we hear quickly enough of the successful cases, and he believed that we learn more from the unsuccessful ones. The real question at issue is, whether are excisions or amputations most fatal to human life? The tables that he would now read to the Society were decidedly in favour of the former. He found, by the return of wounds and operations during this year, that Sir John Hall was so kind as to give this Society, that out of a total of 8900 wounds, there were 1154 operations, of which 54 were excisions, which may be thus classed:—

	cases.	fatal.	per cent.
Excisions of the upper extremity were	36	2	5·55
Do. Do. lower Do.	14	7	50·00
Miscellaneous	4	0	
	54	9	16·66

or 83·34 per cent. were successful.

Total operations 1154. Deaths 225, or 19·49 per cent.

Operations less excisions 1100, deaths, 216, or 19·63 per cent., giving 3 per cent. in favour of excisions.

Or, to enter more minutely into the various operations, we will first take those of the shoulder-joint:—

		per cent.		per cent.
Amputations were 60, fatal 19, or		31·66,	or	68·34 successful.
Excisions ,,	12, ,, 2, ,,	16·66,	,,	83·34 ,,

giving a difference in favour of Excisions 15·0 per cent.

The next is that of amputations of the arm, with excisions of the elbow-joint. This class, he frankly owned, was scarcely a fair test:—

		per cent.		per cent.
Amputations were 153, Deaths 29, or		18·95,	succesful	81·05
Excisions "	17, " 2, ,,	11·76,	,,	88·24

giving a difference in favour of excisions of 7·19 per cent. Perhaps the most important class is that of operations on the hip-joint, for while the 10 cases of amputations all proved fatal, there were 6 cases of excisions of the head of the femur, of which one recovered, being a per-centage of 16·66 in favour of the excisions. It is needless, on the present occasion, to carry this analysis any further; but, taking the three classes together, we find that of 223 important amputations, 58, or 26 per cent. were fatal; and of 35 excisions, 8, or 22·85 per cent., were fatal. On the whole, that the per-centage is still in favour of the excisions. It, perhaps, might be as well to mention what might have been the excisions performed out here.

Of the upper extremity there were of the

	cases.	per cent.	
Shoulder-joint	12 . 2	or 16 66	proved fatal.
Elbow	17 . 2	,, 11·77	,,
Head of Radius	1 . 0	,, ..	,,
Ends of Radius and Ulna	1 . 0	,, ..	,,
Part of Ulna	1 . 0	,, ..	,,
Part of Humerus	1 . 0	,, ..	,,
Part of Carpus and Metacarpus	2 . 1	,, ..	,,
Internal Condyle of Humerus	1 . 0	,, ..	,,
	36		

Of the lower extremity there were of the—

Head of the femur	6	5	fatal.
Part of femur	2	2	,,
Knee-joint	1	1	,,
Os calcis	4	0	,,
Lower end of fibula	1	—	,,
	14	8	

Miscellaneous cases were 4, principally of the face, including one excision of the lower-jaw,—all successful. Mr. Thornton then gave a rapid sketch of the history of excisions, and that almost all had been performed on account of disease of the bones; and he might safely say, that it had fallen to our lot to prove, by the experience of this war, the efficiency of excisions over amputations in recent gunshot wounds of the joints; and we must allow that the results are, so far, satisfactory. Another question is, how much of the joint may we remove, or leave with safety? We certainly may deal more freely with the upper than the lower extremity. In one of the cases he had read, he removed only a portion of the elbow, whilst he had freely opened the joint, and this without the slightest after-symptoms to cause him to hesitate in doing so again, should an opportunity offer. The general results of the operations on the upper extremity are certainly satisfactory, whilst those of the lower extremity, as we might expect, have not been so happy, but are still so much so over amputations as to make us regret that they have not been oftener tried. We must all rejoice that the last act in the grand drama that we have been engaged in, has been the establishment of this Society; and that, while the nations are laying aside the sword in peace—although we have a warfare to carry on against quackery, ignorance, and routine, perhaps in none more so than the subject before your notice. The members of this Society owe it to themselves, he would say, to proceed in the good work which has commenced so well. Let us, therefore, keep this Society, not only alive, but active, and draw forth that knowledge which our discussions have already given us such good reasons for knowing that our fellow-labourers in the field of humanity possess. In conclusion he would say, remove as little of the human frame as possible, and let us enlist under the banner of conservative Surgery.

Mr. McLeod believed that only one successful case of excision of the hip-joint occurred.

Mr. Blenkins said that we are all alive to the importance of this operation; and it was a most interesting subject that, whilst there was some difference of opinion as to the operation, the results were generally satisfactory. He corroborated Mr. Thornton about the effects of climate, and that there was a period when the wounds did badly; the sirocco had affected his patients, one of whom was a hip-joint case. His opinion was such as to encourage a repetition of this operation. Excisions must be more frequently repeated, as how many shoulder-joints have been excised instead of amputated, and thus many a limb saved. That the sirocco should have occurred at a time when there were so many wounded in the Hospitals was unfortunate, and his own patients were seriously affected by it. He considered the weather had a great influence on the success of operations. He had excised three and a-half inches of the humerus; the wound healed rapidly, and considerable consolidation had taken place. The man will have a good and useful limb. His case of hip-joint was a severe compound comminuted fracture, by shell, of both trochanters, and the neck and head and upper third of the shaft of the femur. The wound did well for three weeks, and granulated healthily. He then began to complain of the knee of the same limb, which had been injured many years previously; depositions of matter took place in the joint, and the man died. He agrees in almost all that Mr. Thornton has stated, and the Medical Officers of this Army have done honour to the Profession by the improvements they have made. He considers it our duty to see how much we could do to save a limb.

Dr. M'Andrew added his experience to Mr. Thornton's in the success of excisions; and stated the happy terminations of all the excisions in the Castle Hospital, Balaklava. One check to this operation heretofore was the want of chloroform, they being both tedious and painful. Now, at all events, we may have anchylosis of the joints, and save the limb. He then read notes of three cases of excisions that he had performed, all of the head of the humerus; in one with more than two inches of the humerus. They all succeeded admirably, and the patients were sent home with still useful limbs.

Dr. Bems had performed two cases of excisions of the head of the humerus and one of the elbow. They were secondary operations, and, as such, were quite successful. It was a useful question to consider whether they ought to be primary or secondary operations.

Dr. Salt said, they were greatly indebted to Mr. Thornton for eliciting so much information. He was not here during what might be called the operating season, but he rose to refer to an officer, Mr. Timbrell, Paymaster of the 6th Regiment, who had received a compound fracture of both femurs from a gunshot wound in India. As he would not consent to amputation he was left to nature. He recovered, and his legs are now five inches shorter than before. We find that wonderful cures do sometimes take place. In this case the bones exfoliated, and no operation took place. We ought to take a lesson from it in preserving a limb.

Dr. Taylor had attended the case referred to by Dr. Salt for a short time. He had found him with both thighs broken and the bone exfoliating; he can now go out shooting. About the cases of excision of the hip-joint there were only six cases, as follows:—1. Dr. Macleod; 2. Mr. Blenkin; 3. Dr. Crear; 4. Dr. Hyde; 5. Dr. Coombe; and 6. Dr. O'Leary's, which alone proved successful.

Dr. Burke read notes of a case of excision of the elbow-joint, which might be considered successful as an operation. He considered chloroform most useful in such cases, from the tediousness of the operation. He then referred to a review in the *Medical Times and Gazette* in a late number, on the sixth edition of Mr. Guthrie's Commentaries, which was such as to place the 2nd Division in a false position, by charging them with the non-use of chloroform, where it mentions that they "hope that even in the 2nd Division chloroform may be yet used." He does not participate in the views therein expressed, for he considers it the most useful boon that humanity ever received. It is certainly objectionable in some cases, but they are few. He had used chloroform in all his cases, and had only one fatal case in his regiment (the 3rd). In the 47th regiment chloroform was used in every case except one, and it proved fatal. He then expressed regret for noticing the subject, but it was the only opportunity for mentioning it and refuting the charge.

Dr. Williams regretted that Dr. Gordon was not present, and said the remarks that have been expressed by Dr. Burke had been already made to him, and he thought it was already

refuted. He and others had read it with regret, as it is known that many cases in the 2nd Division were operated on under chloroform, and that the Regimental Surgeons are generally left to their own discretion. The misconception may have arisen from supposing the 2nd Division carried out more fully than others the recommendation given at the commencement of the war. Yet, he trusted in cases of emergency they would always act on their own opinions, and give or not chloroform as individual feelings might lead them to think right.

Dr. de Chamont remarked, that Mr. Thornton had only mentioned the case of excision of the knee-joint. He had seen the late Dr. Mackenzie perform this operation twice successfully (in Scotland); the men were able to walk, but only after very long time. It was a question whether it would not have been better to have amputated in these cases. There was another successful case published lately in a Scotch periodical.

Dr. Macleod had operated in a case of hip-joint. (He read the case, which he has published.) The only case of excision of the knee-joint had been performed in the General Hospital in camp. The ball had penetrated the joint, and lodged in the internal condyle; that no symptoms had appeared for ten days; the inflammation had set up, and the operation was performed a week after. When the wound was nearly healed, symptoms of pyæmia supervened, and he died six weeks after the operation. The statistics of this operation have been given by Mr. Butcher of Dublin, who mentions 31 cases and 6 deaths. He considered the operation was not adapted for Military Surgery, from the length of time necessary for recovery.

Mr. Wyatt agreed in what Sir John Hall had mentioned on a previous occasion, that it was only after the cases had arrived at Chatham that a true decision could be arrived at. That the point still on be considered was the influence of locality and arrangements to the practice of conservative surgery; there were many inconveniences on the field to prevent the recovery of these cases. That operations could not be attended to as well in Military as Civil Hospitals, he was not aware that such was the case.

Mr. Macleod distinctly begged to state, that he does not mean that the patients cannot be attended to as well in a Military as a Civil Hospital, but he spoke with reference to Mr. Lynec's paper on the subject, and the inapplicability of excision of the knee to field practice.

Mr. Wyatt said, that if Mr. Lymee had been here last summer he would have had a different opinion, and that any operation can be performed here. He believed our hospitals were second to none.

Dr. Hume said, the discussion all tended the same way in favour of conservative surgery, and concluded by proposing the thanks of the Society to Mr. Thornton for his paper, seconded by Mr. Salt.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of Medicine, and received certificates to practise, on Thursday, September 11, 1856:—

Bowles, Robert Leamon, Abergavenny, Monmouthshire.
Ensor, Frederick, Dorchester.
Hood, Wharton Peter, Lower Seymour-street.
Marshall, Francis, Sutton-place, Hackney.

DEATHS.

Barnett.—Sept. 11, at Burleigh Villa, Upper Norwood, John Barnett, M.D., of Chesham-place, Belgrave-square, aged 73, highly esteemed. M.R.C.S.E. 1806.

Sheen.—In June last, on his passage home from Hobart Town, in the Mercia, of which ship he was Medical Officer, Frederick Sheen, Esq.

Waylen.—Sept. 9, in the Brittox, Devizes, in his 81st year, William Waylen, Esq., for upwards of 50 years a Medical Practitioner of that town.

Wadd.—Sept. 12, Thomas Milner Wadd, Esq., Surgeon, Basinghall Street, aged 76, M.R.C.S.E., 1804; Surgeon to Whitecross-street Prison.

Wilkins.—Sept. 8, at Winchelsea, Joel Wilkins, Esq., Surgeon, of apoplexy, aged 41. M.R.C.S.E., 1839; L.S.A. 1842.

The Queen's College, Birmingham.—The Annual Meeting of the Governors, Fellows, and Members of this Institution was held on Saturday last, at which the Mayor presided. After a short and eloquent address from the Chairman, as to the great value of the College to the town and midland counties, the Dean of the Faculty was called upon to read the annual report. It appears that during the last twelve months, 13 students have passed the Royal College of Surgeons; 10 students have obtained the licence of the Society of Apothecaries; 4 students have received the midwifery licence from the former body; on 2 students the degree of M.D. has been conferred by the University of St. Andrew's; 2 students have presented themselves before the East India Board, and have obtained commissions; one student has passed the first examination for the B.M. degree at the University of London, and has obtained the gold medal for proficiency in anatomy and physiology offered by that body; 4 students have been placed in the first division at the Matriculation examination of the same University; and one of the late students has been elected Professor of Surgery at the States' University, Madison, U.S. The report embraced a comprehensive view of the several departments—viz., the Medical, Engineering, and Theological departments, and was unanimously adopted. The following names were announced as the successful competitors for the College honours:—

Warneford Scholar	Mould	Tudbury.
Warneford Scholar	Lynch	Bristol.
Warneford Gold Medalist	Bright	Richmond.
Warneford Gold Medalist	Greene	Birmingham.
Anatomy Medalist	Williams	Scarborough.
Honorary Certificate	Neal	Birmingham.
Physiology Medalist	Neal	Birmingham.
Honorary Certificate	Williams	Scarborough.
Junior Class Medalist	Mould	Tudbury.
Honorary Certificate	Hyde	Worcester.
Demonstrations Certificate	Neal	Birmingham.
Anatomical Examinations	Williams	Scarborough.
Medicine Medalist	Bright	Richmond.
Medicine Certificate	Bennett	Birmingham.
Surgery Medalist } æq.	Neal	Birmingham.
Surgery Medalist } æq.	Hayward	Birmingham.
Forensic Medicine Certificate	Sutton	Smethwick.
Midwifery Medalist	Alderson	Aslackby.
Honorary Certificate	Lynch	Bristol.
Materia Medica Medalist	Wilders	Birmingham.
Botany Medalist	Abbey	Wellingborough.
Stethoscopic Prize Books	Wright	Evesham.
Medical Tutor Senior Prize	Cornbill	Blockley.
Medical Tutor Junior Prize	Jones	Llansillin, Oswestry.
Classics	Troup	Birmingham.
Classics	Brophey	
Webster French Prize	Tuxford	Boston.
French	Wolesley	Carnarvon.
French	Henderson	Smethwick.
Mechanical Drawing	Henderson	Smethwick.
The Percy German Prize		

The usual routine business having been transacted, and a vote of thanks having been passed to the Mayor, the meeting adjourned until the 1st of October, when the honorary rewards will be publicly distributed.

Melancholy and Fatal Mistake.—Another of those lamentable occurrences which have of late been so prevalent in our country has just occurred in Weymouth, Dorset—viz., the administration of a poison instead of a prescribed medicine through mistake or negligence. The painful event to which we refer took place on Thursday evening week last. The person whose life has been sacrificed is named Augustus Broughton, and is son of Colonel Broughton, residing at Powell-villa, Chickerell, near Weymouth. It appears that about the middle of the day in question the deceased complained of a slight headache; his mother, therefore, sent a servant named Eliza Dowell to the shop of Mr. Barling, chymist of this town, with a note requesting "an aperient draught for a child 11 years old." The servant gave the note to one of the assistants, which of whom she knew not. The assistants, or rather apprentices, are named Lundie and M'Connochy, besides whom there is a lad named Barrett, about 13 years of age. This lad, it appears, was subsequently directed to get the aperient, "black draught." By some mistake or negligence—this lad put up a proportion of "black

drop." This "black drop" was kept in a cupboard, and the black draught on a shelf near the counter. Unfortunately the "black drop" was put into a bottle, conveyed to the boy, and it would appear administered to him, shortly after which he became comatose and could not be awoke. Mr. J. Lithgow, a surgeon, was sent for, but could not render any assistance, and shortly after his arrival the unfortunate child expired. The lad who put up the "black drop" was said to be Barrett. The inquest commenced with the surgeons, Messrs. Lithgow and Tompson, stating that the result of their examination of the contents of the body led them to conclude positively that the death of the deceased was caused by the administration of a preparation of opium. The chymist and druggist, Mr. Barling, and his assistant, John M'Connochy, made statements on oath, from which it would appear that the former was absent at the particular time, and that the latter knew nothing of the execution of the order in question. The only other persons who could have executed it were John Lundie and James Barrett. The former is about 20 years of age, and has been apprenticed to Mr. Barling about four years; and the latter is 13 years of age, and has been in the service of Mr. Barling just over four months. The jury, after a long consultation, returned the following verdict;—"We find that the deceased, Augustus Broughton, came to his death from the effects of a preparation of opium being administered to him instead of black draught, the mistake having occurred through the want of care on the part of John Lundie and James Barrett, two servants in the employ of Mr. Barling, chymist and druggist; and the jury also wish to express their disapprobation of allowing young persons in the employ of druggists to dispense medicine until they are properly qualified by experience to do so."

Irish Analysis of the Adulterations of Whiskey.—An Irish analyst, in the *Limerick Chronicle*, gives the following composition of adulterated whiskey:—"It is composed," he says, "of one-third spirits, one-third aqua-fortis, one-third vitriol, and one-third water." The writer in the *Times*, who quotes the paragraph, suggests that the analyst who penned this statement, may probably have left one half of his senses in his nightcap, lost one half in taking the dram which he analyzed, and made use of the rest in obtaining his results.

Sale of Poisons.—This subject is becoming every day invested with an importance which it will be criminal in any Government or Legislature to neglect. A London Chemist writes thus:—"I have lately opened a new business, and conducting it upon the same principle I formerly did the one which I had fifteen years, and that without a single mistake, but entirely free from the assistance of apprentices. Only last week I was severely censured and abused by two persons, respectable to all appearance, for refusing to part with an ounce of laudanum to each. I required of them their names and residences, which they obstinately refused to give. This I required for my own security. Upon my not serving them, they went to a neighbouring chemist's, where two apprentice-boys are kept, and obtained their required wants; and as one of them returned, he bawled in at my shop-door, holding up the bottle, 'You see I have got it. You, sir, must be a fool, if you think you can make a business here by such absurd rules and requirements; it matters not to you who I am.'" But not only must chemists and druggists be looked after—that most mischievous species of shopkeepers, "herbalists," ought to be at once prevented from pursuing their murderous avocation. As a specimen of the qualifications of this class, we quote from the advertising columns of a weekly contemporary, which appeared last week. "A Herbalist's Shop, *suitable for Females*.—To be let, a house and shop in the above line, with plate-glass front, and roomy shop and parlour, and two bed-rooms, with yard and wash-house, *with or without a good mangling business*. Coming-in for fixtures and stock under £20."

America.—The yellow fever has died out at Staten Island. There are no fever patients inside of the Marine Hospital, and no new cases reported outside the walls. Seven deaths are reported as having occurred at Fort Hamilton between noon of Friday and noon of Monday, and seven new cases are also reported. Two other cases have occurred at Governor's Island. The disease, however, is rapidly declining in these last named localities.

West Indies.—The West India Islands are now all reported as exceedingly healthy.

The Cholera has broken out with great violence in some of the eastern provinces of Russia.

Small-Pox.—There were only 6 deaths from small-pox in the metropolis last week; but one of these, the case of a child who died at 1, Tripp's-buildings, Tufton-street, Westminster, occurred in circumstances which the medical attendant relates as follows:—"The whole family, consisting of eight persons, eat, drink, and sleep in one very small room; four of them are ill with small-pox, none apparently have been vaccinated, and it is stated that the same disease carried off four children in the family on a former occasion."

Mortality Notabilia.—The deaths registered in London, which in the previous week were 1100, were in the week that ended last Saturday 1087. In the ten corresponding weeks of the years 1846—55 the average number of deaths was 1355, and the average rate of mortality of that period would produce in the present increased population nearly 1500 deaths; but if the deaths caused by cholera at two periods in which it prevailed be withdrawn from the calculation, it will appear that the health of London, as measured by the mortality, is now as good as is usual in September. Diarrhœa, which had decreased constantly during three previous weeks, shows a further decrease, though of no great amount. The deaths from it last week were 116, of which 97 were amongst children not two years old. The complaint seems to be common in the East sub-district of Islington; and Mr. Mortis, Registrar of Eltham, refers to a part of his district, called Well Hall Cottages, where the inmates of all the houses, which are six in number, have suffered from it, and three of the cases have been fatal. After careful inquiry he is not able to assign any local condition to which the disorder can be attributed, and is induced to think that it has been imported from Woolwich.

Births.—The births of 814 boys and 739 girls, 1553 children, were registered. Average 1416.

Meteorology.—The mean height of the barometer in the week was 29·852 in. The highest reading was 30·05 in. on Thursday, and on both that and the following day the mean reading was above 30 in. The mean temperature of the week was 58·7°, which is 1·3° above the average of the same week in 38 years (as determined by Mr. Glaisher). The highest was 72·5°, on Wednesday; the lowest 44·8°, on Tuesday. The mean dew-point temperature was 51·7°; and the difference between this and the mean temperature of the air was 7°. The mean temperature of the water of the Thames was 62·0°. Wind on the last three days, north-east and north. Rain 0·41 in. Horizontal movement of air, 395 miles; electricity positive, tension variable.

Deaths in Public Institutions for the Week ending September 13:—

	Males.	Females.	Total.
Workhouses	43	44	87
Prisons	..	..	..
Military and Naval Asylums ..	6	..	6
General Hospitals	36	25	61
Hospitals for Special Diseases ..	2	1	3
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	4	..	4
Hospitals for Foreigners, etc. ..	..	..	..
Lunatic Asylums	5	4	9
Total	96	74	170

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	1	6	5	5	9	9
North	490,396	..	1	10	8	27	11
Central ..	393,256	2	4	7	3	20	3
East.....	485,522	1	3	16	7	27	13
South	616,635	2	1	13	6	33	12
Total..	2,362,236	6	23	51	29	116	48

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, September* 13, 1856.

Causes of Death.	In the Week ending Saturday, Sept. 13, 1856. Deaths of Persons. AT ALL AGES. Mean temp.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	° 58·7						° 57·5
All Causes	1087	605	147	151	154	26	1355·0
Specified Causes	1082	604	147	151	154	26	1349·7
Diseases:—							
1. Zymotic Class	309	252	22	14	18	3	651·3
2. Dropsy, Cancer, and others of uncertain seat	52	8	7	19	16	2	44·8
3. Tubercular Class	194	82	69	35	8	..	174·1
4. Of Brain, Nerves, etc. ..	102	52	7	22	21	..	113·4
5. Of Heart, etc.	33	1	6	13	12	1	32·6
6. Of Respiratory Organs ..	126	82	3	11	25	5	84·2
7. Of Digestive Organs ..	61	20	11	13	16	1	66·1
8. Of Kidneys, etc.	16	1	4	5	6	..	11·2
9. Of Uterus; viz. — Puerperal Disease, etc. ..	12	..	4	7	1	..	8·0
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	5	..	1	1	2	1	6·3
11. Of Skin, etc.	2	..	1	1	..	..	2·6
12. Malformations	3	3	..	..	..	..	3·7
13. Debility from Premature Birth, etc.	31	30	1	..	..	..	28·4
14. Atrophy	38	33	..	..	5	..	33·1
15. Age	31	..	..	..	18	13	38·7
16. Sudden	18	9	3	3	3	..	9·8
17. Violence, Privation, etc...	49	31	8	7	3	..	41·4
Causes not specified.. ..	5	1	..	..	..	..	5·3

BOOKS RECEIVED.

The Census of Ireland for the year 1851. Parts V. and VI. Dublin. 1850.

The Dublin Practice of Midwifery. By Henry Maunsell, M.D. New Edition, revised. London. 1856.

Chemistry, Theoretical, Practical, and Analytical, as applied and relating to the Arts and Manufactures. By Dr. Sheridan Muspratt. Part XXVI.

TO CORRESPONDENTS.

Secretaries and Registrars of Medical Educational Institutions are respectfully requested to forward information for our Students' Number immediately, as *Tuesday next* will be the last day on which it will be available.

Inexpertus.—The word *anæmia* signifies bloodlessness, and is somewhat incorrectly applied to the pallid condition of the blood in chlorotic women. The term *spanæmia* is preferable. Although the relative proportion of the constituents of the blood may be altered in certain conditions of the body, it is doubtful whether the *quantity* of the circulating fluid is diminished even by blood-letting; for, although the quantity of the corpuscles may be reduced, the deficiency is supplied by water.

Sigma.—We cannot give a positive opinion as to the relative merits of an attendance upon a Metropolitan as compared with a Provincial Hospital, as very much will depend upon the peculiarities of each case. We think, however, that a student would find it very much to his advantage to study, at least for a portion of his time, at an Hospital in London, Edinburgh, Dublin, or Paris.

We understand that the following handbill has been placarded about the town of Sheffield. We regret to learn that all the Medical men whose names are appended are members of the Royal College of Surgeons and Licentiates of the Society of Apothecaries :—

Rules of the Medical Aid Society.

1. The object of the Medical Aid Society is to supply the working classes with Medical men, duly qualified, on the payment of a small weekly sum.
2. All such persons, from one month old up to sixty years of age, male or female, shall be eligible, if in good health at the time of entering.
3. All persons becoming members shall pay the sum of 2d. entrance and 1d. per week contribution, such contribution to be paid weekly or monthly, but always in advance.
4. That no person be entitled to medical aid until he or she has been a member for one month.
5. That there shall be one or more Medical men (to attend the Medical Aid) according to the number of members.
6. All persons to chose their Medical attendant at the time of entering, and to be written on their card for which they pay one penny.
7. The surgeon shall visit all sick members, and give all requisite advice, attendance, and medicine, accompanied with written or printed instructions, without subjecting the members to any additional charge; such members to attend at the medical man's residence when he considers them sufficiently well to do so; the surgeon to attend all applications when accompanied by a note from the collector (or agent) certifying they are not in arrears the same day.
8. Any member having any complaint to make against the surgeon, to make the same known to the collector (or agent).
9. Hours of attendance, nine in the morning, three in the afternoon, and seven in the evening, and all persons to find their own bottles.
10. All persons being six payments in arrears shall be suspended or not entitled to the attendance of the Surgeon until such arrears are paid, and if twelve weeks in arrear, shall be expelled.

Surgeons—Mr. Herbert J. Walker, 12, Paradise-square; Mr. Henry Julian Hunter, Mr. George Atkins, 25, Howard-street; Mr. John Nicholson, 45, Gell-street.

For further particulars and admission, apply to the agent, Mr. John Garratt, 241, Rockingham-street, Sheffield Moor; or to the Collectors, Mr. John Harvey, sen., 87, Matilda-street, Duke-street, Sheffield Moor; Mr Jacob Hands, 205, Bath Buildings, Glossop Road; Mr. W. H. Cundey, 87, Scotland-street; Mr. George Craig, 8, West John-street.

Mr. Weston.—There is no advantage in causing a young man to study the Medical Profession before he is seventeen or eighteen years of age; a year or two would be better spent at school than in entering upon Medical studies. But Chemistry and Botany, with Natural Philosophy, would form a very valuable introduction to a Medical career.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Can you resolve for me the following question:—Is it legal to remove a case of small-pox during any of its stages to the Union-house? My impression has been, that a Medical man subjects himself to a penalty if he becomes a party to such exposure in the public highway. The Chairman and Guardians with whom I am connected think differently. If you are able to show which party is in error you will much oblige.

Sept. 16, 1856. I am, &c. A Union Surgeon.

[The exposure of a person suffering under small-pox is an offence punishable by fine.—Ed. *M. T. & G.*]

We have visited an Algerine youth, aged 13 years, who is now exhibited at the Prince of Wales' Bazaar in Regent-street, and who is said to be double-faced, or to present two distinct profiles. The fact is, that the right side of his face is almost entirely black, while the other side, with the greater part of the rest of the body, is white. The appearance which gives so singular an aspect to the face is due to an extensive mole, covered almost entirely with hair, on the right side. There are other moles of dark colour on other parts of his body, and there are tufts of black hair, one on the right knee and another over the upper part of the sacrum. He has no hair on the pubes. The case is one of partial transformation of the cutaneous structures. The parents of the boy, we understand, were both white.

Derriensis begs to be informed where "Lyons' Report on the Pathology of the Army to the East" can be procured, and the price. [It is a Parliamentary paper, and may be procured at Hansard's, Turnstile, Holborn.]

The letter of our French Correspondent unfortunately arrived too late for insertion this week.

Dr. Leared's paper is unavoidably postponed.

W. C., Brompton.—The communication was received too late for this week's impression.

COMMUNICATIONS have been received from—

Dr. Guy; Dr. Marston; Mr. W. Adams; A Sheffield Medical Practitioner; Dr. J. R. Pretty; Dr. C. F. Moore; Mr. Oliver Pemberton; Derriensis; Dr. Arthur Leared; M. A. Moreau; A Union Surgeon; Medicus; Sigma; Mr. Weston; Mr. D. Lind; Inexpertus; Dr. Croft; Mr. Henry Bigg; Mr. H. J. Pinsent; A Hater of Quackery; Dr. J. J. M.; A Fellow of the College; Mr. Morton; Dr. Peacock; Bristoliensis; Mr. T. H. Huxley; W. C., Brompton.

APPOINTMENTS FOR THE WEEK.

September 20. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

22. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

23. *Tuesday.*

Operations at Guy's, 1 p.m.

24. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

25. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

26. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

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Advertisements should reach the Office by two o'clock on Thursday, at the latest, but earlier, if possible, accompanied by a Post-office order, (payable to Mr. James Lucas, at the Post-office, 1, Coventry-street,) or postage-stamps for the amount, and directed to 11, New Burlington-street, London.

Medical Times & Gazette.

SATURDAY, SEPTEMBER 27.

ADDRESS TO STUDENTS.

There is one subject on which, in thus again addressing those of our young friends who are just about to commence their Students' career, we feel that we need say nothing. Amongst those who are soon to join our Schools, there probably is not one who does not begin with the best possible intentions. We need not seek to supply motives, and may safely confine ourselves to the attempt to point out the means. Full of high hopes and with lofty aspirings, nine-tenths of those whom we address have already resolved on gaining distinction, and on placing themselves in a future day in the foremost ranks of the Profession they have chosen. Nor would it be the place of a wise Mentor to say one word in discouragement of such aims. Although he may know full well, as a matter of truth, that in more than nine out of every ten instances they will never come to be realized, yet he is assured also that there is, in very few cases, any substantial reason why they should not. Few indeed among his readers are there, to whom, by any unalterable decree of nature, an extent of knowledge, even very far beyond the ordinary, has been made impossible. To all, with a very small number of exceptions indeed, is the goal on which they have set longing eyes within reach. The question of gaining it, is one merely as to the runner's energy and patience, and not as to his original endowments. The aspirations to which we have adverted are in themselves most praiseworthy, and partake only of the nature of the romantic, in proportion as their possessor may have failed to estimate the means needful, and with stern resolve to determine to employ them. To well-directed industry nothing is denied, and to those who have resolved on employing this talisman we have nothing to say in repressal of the most lofty schemes. Let those indulge, if they will, in building castles in the air, who have resolutely determined, respecting them, that they are to serve only as the models for erections which the future shall see raised in solid stone. Employed in this way, the sanguine and enthusiastic schemes of the boy may become of the greatest use in the development of the character of the man. It was one of Schiller's watchwords—Keep true to the dream of thy youth: and, carrying out the same idea, our own countryman, in his noble sketch of the character of an ideal great man, remarks—

> "It is the generous spirit, who, when brought
> Among the tasks of real life, hath wrought
> Upon the plan that pleased his boyish thought."

We cannot, perhaps, better employ this occasion than by sketching out a few of what appear to us the causes of failure on the part of Students in our Art to realize in actual life the dreams of their early youth, and offering, as we proceed, a few hints for the attainment of success. First, undoubtedly, among the sources of disappointment we must rank

Undue estimates of the difficulties to be encountered.—These as often almost err on one side as the other; that is, underestimates are almost as frequent as excessive ones. The superficiality, which is so much a characteristic of the literary pursuits of the present day, tends greatly to favour a deficient appreciation of the labour needful to attain to really good knowledge of any single science; and thus it happens that some young men enter on Medical studies imagining that they may as easily acquire the requisite knowledge, as they have already, in their own belief, that of some half-dozen other sciences. It is merely another to be added to the list of subjects that they are "up in." They forget that the kind of knowledge of the science which is to be the profession of their life, must be something very different from that which may qualify a man for polite society, and fit him to shine in the drawing-room. Further progress proves this to them, and then they either stand back, discouraged at a kind of study for which they had never prepared themselves; or, what is more common, they make a base compromise with conscience, and determine, by a dexterous use of such generalities as they may have picked up, to conceal their deficiencies in respect to details which they have not the resolution to master. It would be well for every one who undertakes the study of Medicine to know, from the beginning, that, whatever may be his powers of application, however brilliant his talents, there is scope enough in it for the devotion of a life's industry; and that to acquire, during the limited period usually allotted to his Student's career, even such knowledge as may fit him to commence its practice, will demand all the energy and perseverance at his command. To those who overrate the difficulties of the task they have undertaken, we would say simply, Be bold. All that is requisite is honest application. A way opens among the hills for him who advances, and difficulties are always greater at a distance than when fairly met. It is true that the subjects are very numerous, and that each one of them has almost countless ramifications of detail, which must be mastered. You will find, however, that the mastery of one clears the way for that of others; and, as you progress, you will be astonished at the improvement of your own powers, and at the comparative ease with which at length you pursue the acquisition of new branches of knowledge.

Self-distrust.—At first sight it might appear that what we have just said is applicable to the class of Students whose self-distrust hinders them of the success they might otherwise obtain. But it is only so to a certain extent. There are those who feel no dread of work, who do not shrink from study as such, however wide may be its scope and arduous its toil, but who yet entertain a morbid distrust of themselves in comparison with others, which is continually preventing them from attaining that position to which they are otherwise entitled. As Students, they avoid all competitive examinations, and avail themselves but little of the privilege of conversation with their teachers, and with others whom they suppose to be much further advanced than themselves. In after life they remain mute and inglorious, while others, possibly in

every way their inferiors, boldly take possession of the field. We may then fairly place self-distrust among the errors of which the Student should most earnestly beware. In Students' life it will deprive him of invaluable opportunities for self-improvement; and in later days, it will prevent him from contributing his due share to the advancement of his art. The plan on which this error should be combated is plain. It is related of a certain distinguished statesman, that being inadept at public speaking, he made, and for a long period kept, a resolution to address the House on some one or other subject every evening, and that the result was that he became a celebrated orator. Just so with the diffident man; he should take every opportunity of bringing himself into competition with others, should seek occasions for conversation, attend discussion societies, and in short, should make it his studious endeavour to obtain as soon as possible that most invaluable piece of knowledge, a right estimate of himself.

Self-complacency.—A far larger class than that just counselled, are those whose source of error and of failure, is a kind of over-easy satisfaction with self. They are not unambitious, and would be unwilling to be ranked lower than others, but their measure is soon gained, and they are easily made happy by a few small successes. A certain glib familiarity with Medical phraseology having been acquired, half-a-dozen good points earnt, a few crotchets got hold of, together with just enough knowledge to be able to defend them, and men of this class settle down into the pleasant belief that they are accomplished beyond mediocrity in all that appertains to their art. Others of the same genus differ only insomuch that their standard is rather higher. They must take prizes; but this achievement once accomplished, they also, happy in the conviction that they have won their spurs, act as if they considered that there was nothing further to be done or known. This tendency to be too easily satisfied with ourselves and our achievements is, indeed, a fault to which we are all of us but too liable; and great indeed is the extent of mischief and loss which Medical science, in common with all other branches of learning, suffers from it. We are for ever wishing to stay and look back in self-congratulation on what has already been won, forgetting how much yet remains of which we know nothing; and that, in Science as well as in Morals, our duty is to be ever striving to go on unto perfection. It matters not to us, the knowledge that we shall never reach that goal. The more we labour, the nearer to it we shall come; and the higher we shoot the higher will our arrows fly, although they may perhaps never reach the mark at which they were aimed. And here we may take occasion to recommend strongly to the attention of students of all classes, and especially to those who are conscious of this tendency to be easily satisfied with themselves, the subject of Medical Biography. We know of nothing more calculated to excite and keep alive a healthy spirit of emulative zeal in the pursuit of Professional knowledge, than familiarity with the lives and deeds of some of those whom we may fairly term the heroes of Medicine. Let him who has ever felt the temptation to rest on his oars, or known a flagging of interest, contemplate the lives which such men as Sydenham, Fothergill, Hunter, Jenner, Pringle, Parry, Gooch, Abercrombie, and some fifty others of like stamina, have contrived to live, and then relight his waning lamp at the sources of their fire. It is by continually looking upward that the mind grows upward, and by seeking to imitate the highest that we may hope to attain to the high. But not only will the student be likely to gain from the study of biography an increase of zeal, he will learn also much as to the means of success which will be of the utmost value to him. He will see minds, not originally of the stamp to which the term Genius could properly be applied, and commencing under great disadvantages, by dint of sheer, dogged industry attaining to positions of influence, respect, and usefulness, which they might at first have been pardoned for thinking beyond all reasonable hope. He will see those discoveries, which have been blessings to the world, made not, as it were, by chance, but rewarding the unremitting labours of years—occurring not to the idle and desultory, but flashing as bright thoughts across minds whose constant habit had been one of vigilance and activity.

Irresolution is another among the mental failings which often causes disappointment in the Student's career. Steadiness of purpose and decision of character are among the most essential qualities to success in life, and above all to a life for which study is to be the preparation. Having marked out, with the advice and help of some one on whose judgment you can rely, the course of your pursuits; having determined as to the proportion of time to be devoted to books, to practical pursuits, to recreation, and to rest; and having reduced the two latter to the minimum consistent with health of body and mind, let it then be your aim to reduce your plan to a habit. However onerous and difficult it may have been found at first, no sooner will it have become a habit than it will have also become pleasurable. Never let a single coward thought enter the mind as to the possibility of not succeeding. Rest certain that success, like everything else in this world, is a simple result of means, and will surely follow on their right application. Be not too eager for the early fruit, but be content to go on sowing liberally, in a confident trust that the harvest must and will be correspondingly abundant.

Want of Plan, to which we have just adverted, is far too important a hindrance to be thus lightly passed by. It might, perhaps, be thought that the curriculum of study, laid down by the examining Boards, would be sufficient guide to the Student as to the order in which he should enter upon the several branches of his labour. But there are many questions of detail which will yet remain of the utmost consequence to be rightly determined. How much attention shall he devote to each subject, how much to lectures, how much to the wards, etc. Many of the subjects are in themselves so large, that they would, if well pursued, suffice almost alone to occupy his whole time. To select what is really important, and to get to know what he must learn, and what may be safely left, either for a time or altogether, is his real difficulty. By the provision of tutors, now happily made at almost all our Metropolitan Schools, the means of meeting this difficulty is to a large extent supplied. Following, for the most part, the order of studies required by the examining Boards, as to the amount of time to be devoted to each, the books to be read, those to be avoided, etc., the Student will learn best in consultation with the Hospital tutor. Endeavour by all means to establish a friendship with this gentleman; so that, on all occasions of doubt or difficulty, you may, without constraint, be able to seek his help. But it is desirable that, in the question of the selection of subjects, you should, as early as possible, be in a position to rely upon your own judgment, or, at any rate, to have your own perception of their importance to support the advice given by your teachers. To do so, you must obtain an insight into the kind of acquirements most necessary to Medical life. And this brings us to attempt an answer to that most important question, Ought a first year's Student to attend Hospital practice? Our reply now, as on preceding occasions it has been, must be most emphatically, Yes. The system (of modern introduction) by which Medical Students have been taught to think that the Hospital wards are only to be advantageously visited by those who have mastered Anatomy, Chemistry, Materia Medica, Botany, and already obtained a sight into the theory of Medical and Surgical practice, is one which, we believe, is working very injuriously. If the period devoted

to Studentship were double what it is, such a division of labour might be feasible; but with the present so limited period allotted to the School, there is not a day some part of which ought not to be devoted to the all-important object—the obtaining of practical familiarity with disease. It is true that the tyro will enter the Hospital wards at great disadvantage; but, in spite of that, he will there learn what could be learnt nowhere else, and what will prove of the utmost value to him. It is in the Wards, too, that he must learn the value of the other branches of knowledge. It is there that questions will suggest themselves, the answers to which he will have to seek in the Lecture room, the Library, the Laboratory, or on the Dissecting table. Knowledge obtained with a view to its practical application, and with a known use in prospect, is always well remembered; whilst that is soon forgotten which has been acquired without a perception of its use. Some remarks of Archbishop Whately's on this subject are so apposite, that we cannot forbear to quote them here:—"Writing an analysis, table of contents, index or notes to any book, is very important for the study, properly so called, of any subject. And so, also, is the practice of *previously* conversing or writing on the subject you are about to study. Curiosity is as much the parent of attention, as attention is of memory; therefore the first business of a teacher—first not only in point of time but of importance—should be to excite, not merely a general curiosity on the subject of the study, but a particular curiosity on particular points in that subject. To teach one who has no curiosity to learn, is to sow a field without ploughing it. Now the one object of Medical studies, is a knowledge of diseases and of the mode of their cure, and the collateral subjects are only important in proportion as they conduce to this end. A Medical man is not to seek to be a Chemist or a Botanist for the sake of those sciences themselves, but simply in order that he may be the more skilful in the relief of human suffering. It is not these subjects *per se* that it is desirable for him to take interest in,—he must value them rather on account of their close applications to Medical knowledge.

Having thus endeavoured to point out some of the sources of mishap and hinderance in the Student's career, there now remains only the pleasing duty to notice some of the rewards which the Profession of Medicine has in store for its earnest followers. That grievances in certain quarters still remain we well know; but of this we are sure, that, notwithstanding such, there is no department of scientific pursuit, nor any learned profession, in which so much of the true republican spirit prevails. The cultivator of Medicine enjoys, after all, a fairer field with less of favour to encounter, than he could have in almost any other walk of life. You have but to bring into the market talent, industry, and tact, and you are certain to command your price. Apart, however, from this commercial success, you have yet far higher rewards, in the capability for extensive usefulness which your knowledge will open out to you. A well educated medical man is, in his power of dispensing happiness, at least equal to a millionaire, with the great advantage that the more he gives the richer he himself becomes. Supported by science, you may indulge at will in that greatest of all pleasures, the luxury of doing good; and if you choose you may—we speak with confidence to all not content with a life spent in usefulness,—leave to the world bequests of knowledge, in which, although your name may be forgotten, your spirit will live immortal on the earth.

Manchester Royal School of Medicine.—The late Chatham-street School of Medicine is now incorporated with the Manchester Royal School. The Lectures &c., of the forthcoming session will, however, be delivered in the Chatham-street-School.

RULES AND REGULATIONS
OF
EXAMINING MEDICAL BODIES
IN
ENGLAND,
SESSION 1856—1857.

UNIVERSITY OF OXFORD.

OFFICERS, 1856.

Chancellor.—The Earl of Derby, D.C.L.

High-Steward.—The Earl of Devon, D.C.L.

Vice-Chancellor.—R. L. Cotton, D.D., Provost of Worcester.

Librarians.—Bodleian, B. Bandinel, D.D., late Fellow of New College.
Radcliffe, H. W. Ackland, M.D., late Fellow of All Souls.

Registrar.—Edward Wetherell Rowden, M.A., late Fellow of New College.

PROFESSORS.

Regius Professor of Medicine.—J. A. Ogle, M.D, Trinity.

Tomlin's Prælector of Anatomy:—J. A. Ogle, M.D.

Sherardian Professor of Botany.—C. G. B. Daubeny, M.D., Fellow of Magdalen.

Lichfield's Professor of Clinical Medicine.—J. A. Ogle, M.D.

Aldrichian Professor of Anatomy.—J. A. Ogle, M.D.
Medicine.—J. A. Ogle, M.D.
Chemistry.—B. C. Brodie, B.A., Balliol.

Lee's Lecturer in Anatomy.—H. W. Acland, M.D.

Terms.—Michaelmas, 10th October to 17th December.
Hilary, 14th January to Palm Sunday.
Easter, 10th day after Easter Sunday to the day before Whitsunday.
Trinity, Wednesday after Whitsunday the first Tuesday in July.

FOR DEGREES IN ARTS.

By those who have not taken any degree in Arts, Michaelmas and Hilary terms are each kept by six weeks' residence, and Easter and Trinity terms by three weeks' each.

A residence of three weeks in each term is sufficient for Bachelors of Arts keeping terms for a Master's degree.

Sixteen terms are required for the degree of Bachelor of Arts, from all except the sons, and eldest sons of the eldest sons, of Peers, etc. But of these sixteen terms, the day of Matriculation, if it be in term, counts for one, and the day of admission to a Bachelor's degree for another, and two more may be dispensed with by Congregation; so that, in point of fact, residence for twelve terms only is necessary.

Bachelors of Arts proceed to their M.A. degree in the twenty-seventh term (in the privileged cases twenty-third) from their Matriculation, provided they have kept three weeks' residence after their B.A.

For Degrees in Medicine.

For the degree of Bachelor in Medicine, three years' or twelve terms' residence are necessary, as in the case of candidates for degrees in Arts, with whom they must undergo a public examination, after which three years further are necessary.

A B.M. enjoys the same privilege with the B.C.L. in reference to his M.A. degree.

For a Doctor's degree, three whole years after the Bachelor's are required.

FOR DEGREES IN THE SUPERIOR FACULTIES SUBSEQUENT TO THAT OF MASTER OF ARTS.

The following is the time requisite for degrees in the faculty of Medicine subsequent to that of Master of Arts, all of which date the commencement of the reckoning from the period of regency.

For the degree of Bachelor in Medicine, without proceeding through Arts, all students in that faculty are eligible when they have completed twenty-eight terms from the day of Matriculation: and for a Doctor's, three years must intervene from the time of the candidate's having taken his Bachelor's degree.

UNIVERSITY FEES.

1. *At Matriculation.*—For a Servitor, or Bible-Clerk, 10s. For a Nobleman, or the eldest son of a Peer, 8*l.* For privileged persons (according to Stat. tit. vi. 5, § 1), not claiming immunity, 5*l.* For all others, 2*l.* 8s. And for non-Academicians, 1*l.*

2. *At Graduation.*—For the degree of B.A., 7*l*, 10s. For the degree of M.A., 12*l.* For the degree of M.A., if he has been admitted to his B.C.L. degree before 29th September, 1855, 4*l.* 5s.; if after that time, 7*l.* For Bachelor in any of the superior faculties, 14*l.* For Doctor in any of the superior faculties, 40*l.* For Bachelor of Music, 5*l.* For Doctor in Music, 10*l.* For a degree by decree of Convocation, or granted to any in their absence, besides the usual fees, 5*l.* For degrees by accumulation, beyond the usual fees 5*l.* If any M.A. or Doctor, after having quitted the University, shall wish to return, he shall reside twenty-one days in any one Term, and pay a fee of 10*l.*, unless he would prefer to pay up the fees due from the time of his leaving the University. If he shall not reside, 20*l.*

3. *Incorporation Fees.*—B.A., 8*l.*; M.A., 15*l.*; Bachelor in any of the superior faculties, 15*l.*; Doctor in any superior faculty, 40*l.*; B. Mus., 5*l.*; D. Mus., 10*l.* For a Diploma, beyond the usual fees, 10*l.* 10s.

4. *Fees ad eundem*, 1*l.* Besides the above, every member of the University pays 1*l.* 6s. annually, in four quarterly payments, as University dues. In lieu, however, of this payment, all members having graduated, may at their option compound for all such dues on the following scale, viz.:—If he have not exceeded his 25th year, 22*l.* 15s.; 30th, 21*l.* 15s.; 35th, 20*l.* 12s. 6d.; 40th, 19*l.* 8s. 6d.; 45th, 18*l.*; 50th, 16*l.* 7s. 6d.; 55th, 14*l.* 15s.; 60th, 13*l.* 1s. 6d.; 70th, 9*l.* 6s. 6d.

5. *Fees at Examination.*—All Undergraduates are called upon to pay fees on entering their names for their respective Examinations; viz., for Responsions, 20s.; the First Public Examination, 21s.; the Final Examination, 21s.; for admission into any second school, 10s.; for Examination in Civil Law, 20s.; and in Medicine, 20s.

EXERCISES FOR DEGREES IN MEDICINE.

All Students (besides undergoing the same examination appointed for Bachelors of Arts) are to be examined by the Regius Professor of that faculty and two examiners, of the degree of Doctor in Medicine, who are appointed by the Vice-Chancellor, in the theory and practice of Medicine, in Anatomy, Physiology, and Pathology; in the Materia Medica, as well as in Chemistry and Botany, so far as they illustrate the science of Medicine, and in two at least of the following ancient Medical writers—Hippocrates, Aretæus, Galen, and Celsus. For a Doctor's degree in Medicine, a dissertation upon some subject, to be approved by the Professor of Medicine, is to be publicly recited in the Schools, and a copy of it afterwards delivered to the Professor.

EXAMINATIONS FOR DEGREES IN ARTS.

All Undergraduates must pass three public trials before they proceed to their B.A. degree; as follows:—

Responsions to be holden three times in each year [*i. e.*, 5th of December; Monday after the 4th Lunday in Lent; Thursday after the first Sunday after Trinity]; and to be passed in the third to the seventh term inclusive.

Subjects.—One Latin, one Greek author, or a portion of each; the chief object being to ascertain that the principles of these two languages are well understood. Arithmetic (which will be required of all), Euclid, or Algebra.

UNIVERSITY OF CAMBRIDGE.

OFFICERS, 1856.

Chancellor.—His Royal Highness Prince Albert, LL.D., Trinity.
High Steward.—Lord Lyndhurst, LL.D., Trinity.
Vice-Chancellor.—William Whewell, D.D., F.R.S., Trinity.
Librarian.—Joseph Power, M.A., Clare.
Registrar.—Joseph Romilly, M.A., Trinity.
Annual Officer—Caput—*in Physic.*—Dr. Bond.

PROFESSORS.

Regius of Physic.—Henry J. Hayles Bond, Corpus.
Chemistry.—J. Cumming, M.A., F.R.S., Trinity.
Anatomy.—William Clark, M.D., F.R.S., Trinity.
Botany.—J. S. Henslow, M.A., F.L.S., John's.
Downing of Medicine.—W. W. Fisher, M.D., Down.
Natural and Experimental Philosophy.—R. Willis, M.A., F.R.S., Caius.
Curator of the Botanic Gardens.—James Stratton.

PROCEEDINGS IN PHYSIC.

BACHELOR OF MEDICINE.

A student before he can become a Bachelor of Physic must have entered on his sixth year, computed from the date of his first admission at the University, have resided nine terms (a), and have passed the previous examination.

A Bachelor of Arts may become a Bachelor of Physic after having entered on his sixth year, computed from the date of his first admission at the University, provided that one year at least has intervened between his final determination in Arts, and his admission to the degree of Bachelor of Physic.

The exercises for this degree are one Act and one opponency.

Candidates for the degree of Bachelor of Physic must, previously to the performance of these exercises, in addition to the examination by the Regius Professor of Physic, be examined by the Professors of Anatomy, Chemistry, and Botany, and the Downing Professor of Medicine. The examinations by the Professors of Chemistry and Botany may take place in the fourth year after admission. The other part of the examination may take place in the fifth year after admission, but not earlier. They must have diligently attended the lectures of the Regius Professor of Physic for two terms, and must bring to him certificates of examination by the above Professors, and of attendance on their lectures, in case the course of lectures of the Professor of Botany consist of not less than twenty lectures, and the courses of lectures of the Professors of Anatomy and Chemistry, and of the Downing Professor of Medicine of not less than fifty lectures each. They must also deliver to the Regius Professor of Physic certificates of having been diligently employed in attendance on medical lectures and the practice of some known hospital for two years, or for as long a time as they have been absent from the University during their undergraduateship.

Every candidate for the M.B. degrees pays the Professor £7 for his Act.

If, on or before the 1st February in his fourth year, the candidate for LL.B. or M.B. does not declare, in writing, to the Master of his College, that it is not his intention to proceed to B.A., he forfeits £3 to the University Chest, over and above the usual fees; and if, after this declaration, he proceeds to B.A., he also pays £3 extra to the Senior Proctor.

LICENTIATE IN MEDICINE.

A licence *ad practicandum in Medicinâ* may be granted to a Bachelor of Physic in the term subsequent to that in which he has taken the degree, or to a Master of Arts of two years' standing. Candidates for a licence *ad practicandum in Medicinâ*, being previously Bachelors of Physic, are required to produce to the Regius Professor of Physic certificates of their having attended on hospital practice for three years exclusive of the nine terms which they kept by residence for the degree of Bachelor of Physic, and of their having attended lectures on the following subjects, namely:—Practice of physic and pathology, anatomy and physiology, chemistry and botany, medical jurisprudence, materia medica and pharmacy, principles of surgery, principles of midwifery, practical anatomy for two seasons. Candidates for a licence *ad practicandum in Medicinâ*, being previously Masters of Arts, are required to bring satisfactory evidence to the Regius Professor of Physic of their having been employed in the study of physic for five years after they became Bachelors of Arts, and to produce to him certificates of their having attended on hospital practice for three of the said five years, and of their having attended lectures on the subjects before mentioned. Every candidate for a licence *ad practicandum in Medicinâ* is required to pass an examination to the satisfaction of the Regius Professor of Physic, the Professor of Anatomy, the Downing Professor of Medicine, and a Doctor of Physic, to be nominated by the Vice-Chancellor, and approved by the Senate at the first congregation after the 10th of October in each year. There are two such examinations in every year; one in the week immediately preceding that in which the division of the Michaelmas term falls; the other in the week immediately preceding that in which the division of Easter term falls. A candidate for a licence *ad practicandum in Medicinâ*, being previously Bachelor of Physic, cannot be examined for the said licence until the examination which shall occur next but one after

(a) To fulfil the three terms in the year, the residence required is twenty-five weeks.

his having passed the examination required for the degree of Bachelor of Physic. A student who has declared for law or physic, may put on a full-sleeved gown, when those of the same year, who go out at the regular time, have taken their degree of Bachelor of Arts. He is then styled a Harry-Soph (*ερισοφος*).

DOCTOR IN MEDICINE.

The degree of Doctor of Physic is granted to a Bachelor of Physic of five years, or to a Master of Arts of seven years' standing. The exercises for this degree are two acts and one opponency. Every candidate for the degree of Doctor of Physic, who has not previously obtained a licence *ad practicandum in Medicinâ*, is required to produce to the Regius Professor of Physic the same certificates and pass the same examination as are required in the case of candidates for a licence *ad practicandum in Medicinâ*.

The following Table of Average Expense, regularly incurred by the student, is calculated for one of the Colleges. The difference is not much at any other College :—

Annual.

	£	s.	d.
Tuition	10	0	0
Rooms, Rent	10	0	0
Attendance, Assessed Taxes, etc.	6	5	0
Coals	3	10	0
College Payments	5	7	4

Cost of Living.

Breakfast, Dinner, and Tea, at 16s. 6d. a-week for twenty-five weeks, making the average three terms' residence in the year	20	12	6
Laundress	5	8	0
	£61	2	10

Rent of rooms varies in the several Colleges from 4*l.* to 30*l.* price of lodgings, 8s. to 28s. per week; the most frequent payment is 14s. or 16s.; and half-price is paid in vacations. Entertainment in rooms, attendance of a gyp, orders in the hall, are extra and optional. Private tuition is for the most part 14*l.*, or 7*l.* a term. Personal expenses and tradesmen's bills are independent of the place; they are paid by the student himself, or through the tutor, as may be found expedient.

ADDENBROOKE'S HOSPITAL

was opened in the year 1776, and contains upwards of 100 beds. Certificates of attendance on the practice in it are recognized by the University, by the Royal Colleges of Physicians and Surgeons, and by the Society of Apothecaries in London. During term clinical lectures are delivered weekly by the Physicians, and a course of lectures on the Principles of Surgery by Mr. Humphry, the certificate of attendance on which is received of candidates for L.M.

Physicians.—Henry J. H. Bond, M.D.; G. E. Paget, M.D.; William W. Fisher, M.D.

Consulting Surgeon.—John Okes, Esq., F.R.C.S.

Surgeons.—Charles Lestourgeon, M.A., F.R.C.S.; Josiah Hammond, F.R.C.S.; George M. Humphry, F.R.C.S.

Fees.—For attendance on the medical and surgical practice and the lectures :—

For 6 months	Eight guineas.
12 months	Ten guineas.
An unlimited period	Fifteen guineas.

THE UNIVERSITY LIBRARY

contains more than 170,000 volumes. It is open on Saturdays from ten till one; and on other days from eleven till four.

THE ANATOMICAL MUSEUM.

This rich and interesting collection is under the care and superintendence of the Professor of Anatomy for the time being. It is used by him and by the Regius Professor of Physic for the illustration of their respective lectures. The Museum is at all times open to the Regius Professor of Physic, to the other Professors of Medicine or Natural Science, to Doctors and Bachelors of Physic, and to all students attending the lectures of the Regius Professor of Physic, and of the Professor of Anatomy, or of any of the above-described Professors, from eleven to twelve every day, with the exception of Sundays, Christmas-day, and Good Friday. It is also open to all Graduates from two till three on Tuesdays, Thursdays, and Saturdays.

THE LONDON UNIVERSITY.

Chancellor.—The Earl of Burlington, LL.D., F.R.S.

Vice-Chancellor.—John George Shaw Lefevre, Esq., C.B., M.A., F.R.S.

Registrar.—Richard Wellesley Rothman, Esq., M.D.

EXAMINERS.

Medicine.—Archibald Billing, Esq., M.D., M.A., F.R.S.; and Alexander Tweedie, Esq., M.D., F.R.S.

Surgery.—W. Fergusson, Esq., F.R.S., Sir Stephen Love Hammick, Bart.

Anatomy and Physiology.—Francis Kiernan, Esq., F.R.S., and William Sharpey, M.D., F.R.S.

Physiology and Comparative Anatomy.—Thomas H. Huxley, Esq., F.R.S.

Midwifery.—Edward Rigby, Esq., M.D.

Chemistry.—Professor Brande, F.R.S.

Botany.—The Rev. Professor Henslow, M.A.

Materia Medica and Pharmacy.—George Owen Rees, Esq., M.D., F.R.S.

BACHELOR OF MEDICINE.

Candidates for the Degree of Bachelor of Medicine shall be required :—1. To have been engaged during four years in their professional studies at one or more of the Institutions or Schools recognized by this University. 2. To have spent one year at least of the four in one or more of the recognized Institutions or Schools in the United Kingdom. 3. To pass two examinations.

First Examination.—The first examination shall take place once a year, and commence on the first Monday in August (a). No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—1. Of having completed his nineteenth year. 2. Of having taken a degree in Arts in this University, or in a University the degrees granted by which are recognized by the Senate of this University (b); or of having passed the Matriculation examination (c). 3. Of having been a student during two years at one or more of the Medical Institutions or Schools recognized by this University, subsequently to having taken a degree in arts, or passed the Matriculation examination. 4. 5, 6, 7. (See TABLE OF REQUIREMENTS, page 316.) These certificates shall be transmitted to the Registrar at least fourteen days before the examination begins. The fee for this examination shall be 5*l.* No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination, the fee shall not be returned to him; but he shall be afterwards admissible to the first examination without the payment of any additional fee. (For subjects of Examination, see TABLE OF REQUIREMENTS, page 316.) The candidate shall also be required to translate passages from the Latin Pharmacopœia.

EXAMINATION FOR HONOURS.

Any candidate who has been placed in the first division at the first examination may be examined for honours in any or all of the following subjects :—Anatomy and Physiology. (Candidates may illustrate their answers by sketching the parts they describe.) Chemistry, Materia Medica and Pharmaceutical Chemistry, Structural and Physiological Botany. The examinations shall take place in the week following the commencement of the first examination. [They shall be conducted by means of printed papers; but the examiners shall not be precluded from putting *vivâ voce* questions upon the written answers of the candidates when they appear to require explanation. In determining the relative position of candidates, the examiners shall have regard to the proficiency evinced by the candidates in the same subjects at the pass examination. Candidates who pass the examinations, and acquit themselves to the satisfaction of examiners, shall be arranged according to the several subjects, and according to their proficiency in each; and candidates shall be bracketed together, unless the examiners are of opinion that there is a clear difference between them.] If in the opinion of the examiners sufficient merit be evinced, the candidate who shall distinguish himself the most in anatomy and physiology, the candidate who shall distinguish himself the most

(a) The annual number of examinations wil be increased at a future period, should it be found desirable.

(b) The Degrees in Arts of all Universities in the United Kingdom are recognized by the Senate for this purpose.

(c) The Matriculation Examination is the same for Students in Arts as for Students in Medicine.

in chemistry, and the candidate who shall distinguish himself the most in Materia Medica and pharmaceutical chemistry, shall each receive an exhibition of 30*l.* per annum for the next two years. Under the same circumstances, the first and second candidates in each of the preceding subjects shall each receive a gold medal of the value of 5*l.* Under the same circumstances, the candidate who shall distinguish himself the most in structural and physiological botany shall receive a gold medal of the value of 5*l.*

SECOND EXAMINATION.

The second examination shall take place once a-year, and commence on the first Monday in November. No candidate shall be admitted to this examination within two academical years of the time of his passing the first examination, nor unless he had produced certificates to the following effect:—1. Of having passed the first examination. 2, 3, 4, 5, 6, 7, (see TABLE OF REQUIREMENTS, p. 316.) Certificates on this subject will be received from any legally-qualified Practitioner having the care of the poor of a parish. The candidate shall also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. These certificates shall be transmitted to the Registrar at least fourteen days before the examination begins. The fee for this examination shall be 5*l.* No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination, the fee shall not be returned to him; but he shall be afterwards admissible to the second examination without the payment of any additional fee. (For subjects of examination see TABLE OF REQUIREMENTS, p. 316.) The candidate shall also be required to translate passages of the Latin Pharmacopœia into English, and of the English Pharmacopœia into Latin. On Monday morning in the week following the examination, the examiners shall arrange in two divisions, each in alphabetical order, such of the candidates as have passed. And a certificate, under the seal of the University, and signed by the Chancellor, shall be delivered to each candidate. Such candidates only as in the opinion of the examiners are admissible to the Examination for Honours, shall be placed in the first division.

EXAMINATION FOR HONOURS.

Any candidate who has been placed in the first division at the second examination may be examined for Honours in any or all of the following subjects:—Physiology and Comparative Anatomy. Candidates may illustrate their answers by sketching the parts they describe. Surgery, Medicine, Midwifery. The examination shall take place in the week following the second examination. (The same regulations follow here as in the examination in Honours for M.B., which are bracketed. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who shall distinguish himself the most in Physiology and Comparative Anatomy, the candidate who shall distinguish himself the most in Surgery, and the candidate who shall distinguish himself the most in Medicine, shall each receive an exhibition of 50*l.* per annum for the next two years, with the style of University Medical Scholar. Under the same circumstances, the first and second candidates in each of the preceding subjects shall each receive a gold medal of the value of 5*l.* Under the same circumstances, the candidate who shall distinguish himself the most in Midwifery shall receive a gold medal of the value of 5*l.*

DOCTOR OF MEDICINE.

The examination for the degree of Doctor of Medicine shall take place once a-year, and commence on the fourth Monday in November. No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—1. Of having taken the degree of Bachelor of Medicine in this University, or a degree in Medicine or in Surgery at a University the degrees granted by which are recognized by the Senate of this University (a). Those candidates who have not taken the degree in this University shall produce a certificate of having completed their twenty-third year. 2. Of having attended, subsequently to having taken one of the above degrees in Medicine: *a.* To Clinical or Practical Medicine during two years in an Hospital or Medical Institution recognized by this University. *b.* Or, to Clinical or Practical Medicine during one year in an Hospital or Medical Institution recognized by this University, and of having been engaged during three years in the practice of his Profession. *c.* Or, if he have taken the degree of Bachelor of Medicine in this University, of having been engaged during five years in the practice of his Profession. One year of attendance on Clinical or Practical Medicine, or two years of practice, will be dispensed with in the case of those candidates who at the second examination have been placed in the first division. 3. Of Moral Character, signed by two persons of respectability. These certificates shall be transmitted to the Registrar at least fourteen days before the examination begins. The fee for the degree of Doctor of Medicine shall be 10*l.* No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination, the fee shall not be returned to him; but he shall be admissible to any subsequent examination for the same degree without the payment of any additional fee. The examination shall be conducted by means of printed papers and *viva voce* interrogation. Candidates shall be examined in the following subjects:—Elements of Intellectual Philosophy, Logic, and Moral Philosophy. Medicine.

(a) At present, all candidates for the degree of Doctor of Medicine must have previously obtained the degree of Bachelor of Medicine in this University.

UNIVERSITY OF DURHAM.

Warden.—Ven. Charles Thorp, D.D., F.R.S.

Reader in Medicine.—Dennis Embleton, M.D., F.R.C.S.

Reader in Natural Philosophy.—R.B. Hayward, M.A.

Lecturer in Chemistry.—T. Richardson, M.A.

Students who matriculate at the University of Durham must proceed in the first place to a licence in Medicine, then to the degrees of Bachelor and Doctor of Medicine in that University. The course required for students in Medicine is as follows:—One year's residence in the University, and attendance on lectures similar to those given to students in Arts in their first year. At the end of the year all students must pass an examination in the rudiments of religion, literature, and science. Students who have passed their first examination, must afterwards pursue their studies for three years, either in the University or in a School of Medicine in the United Kingdom which has been received into connexion with the University by Convocation. Licentiates may proceed to the degrees of Bachelor and Doctor of Medicine, by performing such exercises as the warden and senate of the University of Durham shall appoint; such licentiates being of the standing of twenty-one terms from the date of matriculation for the degree of Bachelor, and of thirty-three terms for the degree of Doctor in Medicine. Any student in Arts who has passed the first examination for the degree of Bachelor of Arts may proceed as a student in Medicine of the second year. Any student who has passed the examinations for the degree of Bachelor of Arts is admissible to the final examination in Medicine without passing the former examination appointed for students in Medicine, and without further residence in the University or in a medical school, provided he shall have produced certificates of having attended the requisite medical lectures and hospital practice.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

President—Dr. Paris. *Elects*—Drs. Turner, Hue, Bright, Mayo, Southey, Hawkins, Alderson.

Censors—Drs. Alderson, Guy, Black, Pitman.

Treasurer—Dr. Alderson.

Registrar—Dr. Hawkins.

Curators of the Museum.—The President, the Censors, Drs. Wilson, Alderson, Nairne, Bence Jones, Wigg.

According to the Regulations of this College, no one will be admitted as a candidate for the licence or extra licence, unless he shall have attained the age of six-and-twenty, and shall present a certificate of good moral conduct. His medical education must comprise anatomy, the theory and practice of medicine, forensic medicine, chemistry, materia medica, natural History (particularly botany), midwifery, and the principles of surgery, and must extend over the period of five years. Practical medicine must be studied for three years in an Hospital containing at least 100 beds, and having a complete staff of physicians and surgeons. Those who have studied abroad, in addition to giving proof of five years' medi-

cal education, according to the usual course of study, are required to present testimonials of a twelvemonth's attendance on medical practice at any Hospital in Great Britain, having the qualifications as above.

No one will be admitted as a licentiate (*permissus*) who is accustomed to use any secret medicine or nostrum in the treatment of disease, unless previously to his first examination he make known to the President and Censors its composition and the manner in which it is employed. Every candidate must undergo three examinations before the President and Censors. The first examination comprises physiology, the second pathology, and the third therapeutics. At the commencement of the first examination, the President may inquire of the candidate where he studied polite literature, and the principles of science, and what honours he has obtained, whether in philosophy, arts, or medicine, in order that the answers may be recorded by the registrar. The candidate may also be examined in Greek works on medicine,—to wit, Hippocrates, Galen, or Aretæus. Passages from the Aphorisms of Hippocrates or Galen will be brought forward during the first examination; and, during the second and third, passages from Hippocrates, Galen, or Aretæus, which must be translated into Latin, and illustrated with a brief commentary. If the candidate decline examination in Greek, he will be required to translate parts of Celsus or Sydenham, or some other Latin work on medicine, into English. The examinations are conducted in Latin or English, at the pleasure of the Censors.

Whenever a candidate has passed the prescribed examinations, and has been approved, he will be proposed at the next *comitia majora* (or meeting of the fellows at large) to be admitted as a licentiate; and, if the majority present consent, he will be admitted accordingly. If, however, the candidate be rejected, he cannot present himself for re-examination for a twelvemonth.

Before the licentiate is admitted, he is required to plight his faith to the College that he will obey its statutes, or pay the penalties imposed; and consult the honour of the College and the good of the public in all his medical practice.

If any one holding the licence of the College practise pharmacy afterwards, he is liable to expulsion; and any person practising medicine in London, or within seven miles thereof, without having previously obtained the College licence, is to be admonished by letter to cease his practice until after he has passed the required examinations; and if he continue to practise, despite this admonition, then *legibus regni obnoxius erit*.

Persons who have attained their fortieth year, seeking to become licentiates of the College, but whose medical education is not altogether in accordance with the regulations already stated, must present very high testimonials of professional knowledge and good moral conduct, and, if these are satisfactory to the Censors, after a very strict scrutiny, the Censors may recommend to the College that they should be admitted to examination the same as for licentiates in general.

The old regulation restricting the fellowship ordinarily to the Graduates of Oxford and Cambridge, was repealed in the latter part of 1835; and after Easter, 1836, all candidates were declared to be admissible as licentiates only, from which class, when duly qualified, a certain number are to be annually elected fellows in *comitia majora;* none being eligible who have not been four years in the number of licentiates.

The President of the College is *ex officio* President of the Vaccine Board, a Trustee of the British and Hunterian Museums, and an elector to the Tancred Scholarships. The College also appoints the Sherardian Professor of Botany to the University of Oxford.

The examinations for the licence are conducted by the President and Censors. The periods at which they take place are Michaelmas, Christmas, Easter, and Midsummer. The new Censors are elected on the 25th of June. The lectures are delivered in the early part of the year. There are about nine delivered: three Gulstonian, three Croonian, and three Lumleian, so called from the names of those who left endowments to the College for the purpose. The museum and library are the property of the fellows, but licentiates may, if they desire it, be admitted to the use of the library, on payment of a small subscription.

The College fees are 56*l.* 17s. (including stamp-duty 15*l.*) for the licence; fellowship, 55*l.* 1s. (including stamp-duty, 25*l.*); extra licence, 25*l.*

If any fellow or licentiate should be convicted before the President and Censors of having accused any other fellow or licentiate of Professional ignorance; or of misconduct, unless, it be before a legally-constituted tribunal, he shall be fined 4*l.* for the first offence, and 8*l.* for the second; if he offend a third time, if a fellow, he shall be expelled, and if a licentiate fined 10*l.* This last fine is to be enforced every time afterwards the licentiate shall so offend. If any fellow or licentiate shall offer his professional assistance to any patient whom he shall know to be under the care of another Physician, whether fellow or licentiate, without having been called in to see the patient professionally, he shall be fined 40s.

If any fellow be proved to have made any arrangement with a Druggist, to share with him the proceeds in his prescriptions, he shall be expelled; if a licentiate have entered into a similar arrangement, he shall be fined 10*l.* every time he shall so offend.

Every Physician, whether fellow or licentiate, shall attach to each prescription which he writes, the day of the month the name of the sick person, and his own initials. When a consultation takes place, it is to be carried on with modesty, not in the presence of the sick; and if any difference of opinion occurs, it is to be stated with prudence and moderation, so as to be as little distressing as possible to the patient or the friends, by the ordinary Medical attendant. Whoever infringes these regulations will be fined 5*l.* by the President and Censors.

No fellow or licentiate may consult in London, or within seven miles thereof, with a Physician who does not belong to the College, under a penalty of 5*l.*

All fines are to be paid immediately.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

COUNCIL.

President.—Benjamin Travers.

Vice-Presidents.—Edward Stanley, Joseph Henry Green, Robert Keate, William Lawrence, Sir Benjamin Collins Brodie, Bart., Joseph Swan, James Moncrieff Arnott, John Flint South, Cæsar Henry Hawkins, James Luke, Frederic Carpenter Skey, Joseph Hodgson, Thomas Wormald, John Bishop, Gilbert Wakefield Mackmurdo, Francis Kiernan, William Coulson, George Gulliver, Richard Partridge, John Hilton, Richard Quain, Edward Cock, Samuel Solly.

PROFESSORS.

Anatomy and Surgery.—Messrs. George Busk, Prescott G. Hewett.

Histological.—John Thomas Quekett.

Conservator of the Museum.—John Thomas Quekett.

Librarian.—John Chatto.

Secretary.—Edmund Belfour.

Clerk.—Thomas Madden Stone.

REGULATIONS OF THE COUNCIL

RESPECTING THE PROFESSIONAL EDUCATION OF CANDIDATES FOR THE DIPLOMA OF MEMBER OF THE COLLEGE.

Candidates will be required to produce the following certificates, viz.:—

1. Of being twenty-one years of age.

2. Of having been engaged during four years in the acquirement of professional knowledge.

3. Of having studied Practical Pharmacy during six months.

4. Of having studied Anatomy and Physiology, by attendance on lectures and demonstrations, and by dissections during three Winter Sessions.

5. Of having attended, during two Winter Sessions, Lectures on the Principles and Practice of Surgery.

6. Of having attended, during one Summer Session, Lectures on Materia Medica, and Lectures on Midwifery; Practical Midwifery to be attended at any time after the conclusion of the Session.

7. Of having attended at least one Course of Lectures on the Practice of Physic and one Course on Chemistry.

8. Of having attended at a recognized Hospital

in the United Kingdom the Practice of Physic during one Winter (a) and one Summer (b) Session.

9. And of having attended, during three Winter and two Summer Sessions, the Practice of Surgery at a recognized Hospital or Hospitals in the United Kingdom.

10. And of having attended Clinical Lectures on Medicine and Surgery in conformity with the following Regulations of the Council:—

The certificates of attendance on the Medical practice of a Hospital, commencing on or after the 1st of October, 1854, must be accompanied by certificates of attendance on clinical lectures on Medicine during such attendance; and the certificates of attendance on the Surgical practice of a Hospital, commencing on or after the said 1st of October, 1854, must be accompanied by certificates of attendance on clinical lectures on Surgery during such attendance. Such courses of clinical lectures shall, in England and in the Colonies, consist of not less than one lecture on Medicine and one lecture on Surgery in each week during the Summer and Winter Sessions; and in Scotland and Ireland shall consist of such number of lectures as may be respectively required by the Royal Colleges of Surgeons of Edinburgh and Ireland. These lectures shall be additional to clinical instruction given in the wards, and shall have especial reference to cases at the time, or previously under observation in the Hospital.

The course of study hereby prescribed is required to be observed by candidates who shall have pursued their studies in Hospitals and Schools in England. Those candidates who shall have studied in Scotland are required to bring certificates of having attended lectures on the institutes of medicine during one Winter Session, and on Anatomy during two other Winter Sessions, and on demonstrations and dissections during three Winter Sessions (the foregoing regulations being in all other respects observed). Candidates who shall have attended Lectures on Materia Medica in the University of Dublin will be allowed to bring certificates of such attendance during the Winter Session.

II. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University requiring residence to obtain degrees, will be admitted for examination on producing their diploma, licence, or degree, together with proof of being twenty-one years of age, and of having been occupied at least four years in the acquirement of professional knowledge.

III. Graduates in Medicine of any legally constituted College or University requiring residence to obtain degrees, will be admitted for examination on adducing, together with their diploma or degree, proof of having completed the anatomical and surgical education required by the foregoing regulations, either at the school and hospital of the University where they shall have graduated, or at one or more of the recognized Schools and Hospitals in the United Kingdom.

IV. Candidates who shall have attended at recognized Colonial Hospitals and Schools (c) the medical and surgical practice and the several courses of lectures, with the demonstrations and dissections required by the foregoing regulations, will be admitted for examination upon producing certificates of such attendance, together with certificates of having attended in London, during one Winter Session, the Surgical practice of a recognized Hospital and Lectures on Anatomy, Physiology, and Surgery, with demonstrations and dissections.

V. Certificates will not be recognized from any Hospital unless the Surgeons thereto be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any School of Anatomy and Physiology or Midwifery, unless the teachers in such School be members of some legally constituted College of Physicians or Surgeons in the United Kingdom; nor from any School of Surgery, unless the teachers in such School be members of one of the legally constituted Colleges of Surgeons in the United Kingdom.

VI. Certificates will not be received on more than one branch of science from one and the same lecturer; but anatomy and physiology—demonstrations and dissections—will be respectively considered as one branch of science; and in those Schools in Scotland or Ireland in which such division of those subjects is sanctioned by the College of Surgeons in each kingdom, the Institutes of Medicine,—anatomy, demonstrations, and dissections,—may be separately certified.

VII. Certificates will not be received from candidates who have studied in London, unless they shall have registered their tickets at the College, as required by the regulations, during the last ten days of January, March, and October in each year; nor from candidates who have studied elsewhere, unless their names shall duly appear in the registers transmitted during such studies from their respective schools.

N.B. In the certificates of attendance on Hospital practice and on lectures, it is required that the dates of commencement and termination be clearly expressed; and no interlineation, erasure, or alteration will be allowed.

Blank forms of the required certificates may be obtained on application to the Secretary, to whom they must be delivered, properly filled up, ten days before the candidate can be admitted to examination; and all such certificates are retained at the College.

REGULATIONS OF THE COUNCIL

RESPECTING THE PROFESSIONAL EDUCATION OF CANDIDATES FOR THE CERTIFICATE OF QUALIFICATION IN MIDWIFERY.

1. Persons who were Fellows or Members of the College, prior to the 1st day of January, 1853, will be admitted to Examination for the certificate of qualification in Midwifery upon producing their diploma.

2. Persons having become Members of the College, subsequently to the 1st of January, 1853, will be admitted to examination on producing their diploma, together with a certificate or certificates of having attended twenty labours.

3. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University requiring residence to obtain degrees, will also be admitted to examination on producing, together with their diploma, licence, or degree, proof of being twenty-one years of age—of having been occupied four years in the acquirement of professional knowledge—of having attended one course of lectures on Midwifery—and of having attended not less than twenty labours.

4. Graduates in Medicine of any legally constituted College or University, requiring residence to obtain degrees, will also be admitted to examination on producing, together with their diploma or degree, proof of being twenty-one years of age—of having been occupied four years in the acquirement of professional knowledge—of having completed, at recognized schools, the anatomical and surgical education required of candidates for the diploma of member of the College—of having attended one course of lectures on Midwifery—and of having attended not less than twenty labours.

5. Persons having commenced their professional education, either by attendance on Hospital practice, or on lectures on anatomy, prior to the 1st of January, 1853, will be admitted to examination on producing the several certificates of professional education required for admission to examination for the diploma of member of this College at the period when such persons shall respectively have, in such manner, commenced their professional education.

6. Persons having commenced their professional education, either by attendance on Hospital practice, or on lectures on anatomy, after the 31st day of December, 1852, will be admitted to examination on producing certificates of being twenty-one years of age—of having been engaged during four years in the acquirement of professional knowledge — of having completed, at recognized schools, the professional education required of candidates for the diploma of member of this College—of having attended one course of lectures on midwifery and the diseases of women and children—and of having personally conducted thirty labours.

N.B. The fee for the certificate is as follows, viz.—1. Persons who were Fellows or Members of this College prior to the 1st of January, 1853, two guineas. 2. Persons admitted Fellows or Members of this College subsequently to the 1st of January, 1853, three guineas. 3, 4. Persons producing any other diploma or certificate of degree which may be considered by the Council to afford satisfactory proof of sufficient

(a) The Winter Session comprises a period of six months, and, in England commences on the 1st of October, and terminates on the 31st of March.

(b) The Summer Session comprises a period of three months, and in England, commences on the 1st of May, and terminates on the 31st of July.

No Provincial Hospital will be recognized by this College which contains less than 100 patients; and no Metropolitan Hospital which contains less than 150 patients.

(c) The recognition of Colonial Hospitals and Schools is governed by the same regulations, with respect to numbers of patients, to courses of lectures, and to physicians, surgeons, and lecturers, as apply to the recognition of provincial Hospitals and Schools in England.

Surgical and Medical education, three guineas. 5, 6. All other persons, ten guineas.

ADMISSION OF MEMBERS TO THE FELLOWSHIP BY EXAMINATION.

Except in the cases and instances hereinafter provided for to the contrary, every candidate for the Fellowship, whether a member of the College or not, is required to produce certificates satisfactory to the Court of Examiners:—That he is 25 years of age. That he is (if found qualified upon examination) a fit and proper person to be admitted to the Fellowship, which certificate must be signed by three Fellows. That he has passed a preliminary examination in classics, mathematics, and French, appointed by the Council. That he has been engaged for six years in the acquirement of professional knowledge in recognized Hospitals or Schools; and that not less than three Winter and three Summer Sessions thereof have been passed in one or more of such Hospitals in London. That he has studied Anatomy and Physiology by attendance on lectures and demonstrations, and by dissections during three Winter Sessions of not less than six months each, at a recognized school or schools. That he has attended lectures on the theory and practice of Medicine, and on clinical Medicine; and also on the theory and practice of Surgery, and on clinical Surgery, during two sessions of not less than six months each, at recognized schools and Hospitals. That he has attended one course of lectures on each of the following subjects, viz., Chemistry, Materia Medica, Midwifery, with attendance on cases, Medical Jurisprudence, and Comparative Anatomy, at one or more recognized school or schools. That he has attended the Surgical Practice of a recognized Hospital or Hospitals during four Winter and four Summer Sessions, and the Medical practice of a recognized Hospital or Hospitals during one Winter and one Summer Session. That he has served the office of House-Surgeon or dresser in a recognized Hospital in the United Kingdom. He is also required to present clinical reports, with observations thereon, of six Surgical cases taken by himself at one or more recognized Hospital or Hospitals in the United Kingdom, with satisfactory evidence of their authenticity and genuineness. In the case of a candidate who has taken by examination the degree of Bachelor or Master of Arts in any University in the United Kingdom, it will be sufficient to produce a certificate that he has been engaged for five years (instead of six years) in the acquirement of professional knowledge in recognized Hospitals or Schools, but in all other respects he must produce the certificates of the foregoing course of study. Any person who was a member of the College on the fourteenth day of September, one thousand eight hundred and forty-four, will be admitted to examination for the Fellowship upon the production of a certificate signed by three Fellows that he has been eight years in the practice of the Profession of Surgery, and that he is a fit and proper person to be admitted a Fellow, if upon examination he shall be found qualified. Any person who shall have become a member of the College after the said fourteenth day of September, one thousand eight hundred and forty-four, will, after the expiration of twelve years from the date of the diploma, be admitted to examination for the Fellowship, upon the production of a certificate signed by three Fellows that he has been for twelve years in the practice of the Profession of Surgery, and that he is a fit and proper person to be admitted a Fellow, if upon examination he shall be found qualified.

The preliminary examination in Classics, Mathematics, and French is held in the months of April and October; to which candidates are admitted upon having completed the 18th year of their age, and on the payment of the fee of ten guineas. The professional examination is held in the months of May and November, and occupies two days, either successive, or at such interval as the Court of Examiners may appoint. The subjects of the first day's examination are, Anatomy and Physiology; those of the second day, Pathology, Therapeutics, and Surgery; in the anatomical examination the candidate has to perform dissections or operations on the dead body. The time allowed for examination each day is from ten o'clock in the forenoon until four o'clock in the afternoon. A candidate whose qualifications shall be found insufficient upon his professional examination, will not be allowed to present himself a second time until after the expiration of one year from such examination. Every Member of the College shall, prior to his admission to the professional examination, pay the fee of ten guineas, unless he shall have passed the Preliminary Classical Examination.

The following are the subjects of the preliminary examination of the candidates for the Fellowship of this College during the year 1857, viz:—

CLASSICS.

Livy, Book XXX.
Horace, Odes III., IV.
Thucydides, Book VII.
Euripides, Medea.

Each candidate is required to bring up one of the above Greek, and one of the above Latin authors; one prose writer, and one poet.

MATHEMATICS.

Arithmetic.
Algebra, as far as to include the doctrine of Proportion; and Simple Equations with one or two unknown quantities.
Euclid, Books I., II., and III.
Statics, Hydrostatics, Optics, and Acoustics.

In the physical subjects, it will be sufficient to be prepared with general explanations of the leading phenomena, such as may be found in treatises on Physics, except in the case of Statics and Hydrostatics, in which mathematical demonstrations of the elementary propositions will also be required, such as may be found in any of the following books:—

Barrett's Propositions in Mechanics and Hydrostatics.
Snowball's Cambridge Course of Elementary Natural Philosophy.
Whewell's Mechanical Euclid.
Williams's Elements of Mechanics and Hydrostatics.

FRENCH.

The translation into English of a passage in two of the following works, at the option of the candidate:—

Molière's Misanthrope.
La Martine's Voyage en Orient.
Voltaire's Histoire du Pierre le Grand.

Grammatical questions on the parts of speech, particularly the conjugation of the irregular verbs in the selected passages.

This examination is held twice in the year, in the months of April and October, to which candidates are admitted upon having completed the 18th year of their age, and on payment of the fee of ten guineas.

Any further information may be obtained by application to the Secretary, at the College.

THE SOCIETY OF APOTHECARIES.

Master.—J. F. de Grave, Esq.
Wardens.—J. Saver and J. Simoëns, Esqs.

COURT OF EXAMINERS.

Chairman.—Edward Tegart. Henry Combe, W. Dickinson, T. Ansell, W. P. Brodribb, R. Norton, Richard King, T. Peregrine, H. M. Rowdon, Thomas Rivington Wheeler, Stephen Henry Ward, John Randall, Esqs.

Secretary to the Court of Examiners.—A. M. Randall.

Professor of Chemistry and Materia Medica. — William Thomas Brande, Esq., D.C.L., F.R.S.

Examiner for the Society's Prize in Botany.—Joseph D. Hooker, Esq., M.D., F.R.S., F.L.S.

Clerk to the Society.—Robert Brotherson Upton, Esq.

Curator of the Society's Botanic Garden.—Mr. Thomas Moore.

Beadle.—Charles Rivers.

REGULATIONS.

Every candidate for a certificate or qualification to practise as an Apothecary will be required to produce testimonials:—1. Of having served an apprenticeship of not less than five years to an Apothecary. No gentleman practising as an Apothecary in England or Wales can give his apprentice a legal title to examination, unless he is himself legally qualified to practise as an Apothecary, either by having been in practice prior to or on the 1st of August, 1815, or by having received a certificate of his qualification from the Court of Examiners. An apprenticeship, for not less than five years, to Surgeons practising as Apothecaries in Ireland and Scotland, gives to the apprentice a title to be admitted to examination. 2. Of having attained the full age of twenty-one

years. As evidence of age, a copy of the baptismal register will be required in every case where it can possibly be procured. 3. Of good moral conduct. A testimonial of moral character from the gentleman to whom the candidate has been an apprentice will always be more satisfactory than from any other person. 4. And of having pursued a course of Medical study, in conformity with the regulations of the Court.

Every candidate whose attendance on Lectures shall commence on or after the 1st of October, 1849, must attend—

(*See Table of Requirements*, p. 316.)

The above course of study may be extended over a longer period than three winter and two summer sessions, provided the lectures and medical practice are attended in the order prescribed.

Those gentlemen whose attendance on lectures commenced before the 1st of October, 1849, will be allowed to complete their studies in conformity with the previous regulations of the Court.

Hospitals and Dispensaries.—No Hospital will be recognized by the Court, unless,—1. It contains at least 100 beds. 2. It be under the care of two or more Physicians, members of the Royal College of Physicians of London, or graduated Doctors of Medicine of a British University; and an Apothecary legally qualified, either by having been in practice prior to the 1st of August, 1815, or by having received a certificate of qualification from this Court. 3. The Physicians give lectures on Clinical Medicine, and instruction in Morbid Anatomy. No Dispensary will be recognized by the Court, unless it be situated in some town where there is a recognized Medical School, and be under the care of at least two Physicians and an Apothecary legally qualified. No Medical practice will be available, unless it be attended in conformity with the course of study prescribed for pupils.

Registration of Testimonials.—All testimonials must be given on a printed schedule, and the blanks therein must be filled up by the lecturers themselves. Students will be supplied with schedules at the time of their first registration. All students, in London, are required personally to register the several classes for which they have taken tickets. Tickets of admission to lectures and Medical practice must be registered in the months of October and May; but no ticket will be registered unless it be dated within seven days from the commencement of the course. The Court also require students at the Provincial Medical Schools to register their names in their own handwriting, with the registrar of each respective school, within the first twenty-one days of October, and first fourteen days of May; and to register their certificates of having duly attended lectures or Medical practice within fourteen days of the completion of such attendance. Those students only will be admitted to examination whose registrations have been duly communicated to the Court.

Junior preliminary Examination in Classics and Mathematics.—An examination in Classics and Mathematics will be held at the Hall three times in the year: viz., on the third Tuesday in the months of March, July, and November. Medical students will be admitted to this examination at any period from the date of their apprenticeship to the commencement of the second Winter Session of their curriculum; and those who pass it will not be subject to any subsequent examination in Latin, except in the Pharmacopœia Londinensis and Prescriptions. The subjects of examination will be announced in the Medical Journals three months before each examination. Candidates for this examination will be required to enter their names in a book kept at the beadle's office, not less than one month before the day of examination; and those gentlemen who fail to pass this examination will have to undergo the Latin examination in Celsus and Gregory, when they present themselves for their general examination.

Preliminary Latin Examination.—On the first Saturday in the months of October, December, January, February, April, May, and June, those gentlemen who have completed two winter sessions of their Medical studies, and have not previously failed in the preliminary classical and mathematical examination, may be admitted to an examination in Celsus and Gregory, provided there be twenty names on the list. Candidates will be required to enter their names in a book kept at the beadle's office, on or before the preceding Monday, and to attend at half-past three o'clock, p.m., on the day of examination. Those gentlemen who fail to pass this examination satisfactorily will not be re-admitted until they appear for their general examination.

Examination.—The Court of Examiners meet in the Hall every Thursday, where candidates are required to attend at a quarter before four o'clock. Every person intending to offer himself for examination must give notice in writing to the clerk of the Society on or before the Monday previously to the day of examination, and must at the same time deposit all the required testimonials at the office of the beadle, where attendance is given every day, except Sunday, from ten until four o'clock. The examination of the candidate for a certificate of qualification to practise as an Apothecary, will be as follows:—In translating portions of the first four books of Celsus de Medicinâ, and of the first twenty-three chapters of Gregory's Conspectus Medicinæ Theoreticæ. In Physicians' Prescriptions, and the Pharmacopœia Londinensis. In Chemistry. In Practical Chemistry. In Materia Medica and Therapeutics. In Botany. In Anatomy. In Physiology. In the Principles and Practice of Medicine, including Midwifery and the Diseases of Children.

The examination of the candidate for a certificate of qualification to act as Assistant to an Apothecary, in compounding and dispensing medicines, will be as follows:—In translating Physicians' prescriptions, and the Pharmacopœia Londinensis. In Pharmacy and Materia Medica. By the 22nd section of the Act of Parliament, no rejected candidate for a certificate to practise as an Apothecary can be re-examined until the expiration of six months from his former examination; and no rejected candidate, as an Assistant, until the expiration of three months.

The Act directs the following sums to be paid for certificates:—For London, and within ten miles thereof, ten guineas; for all other parts of England and Wales, six guineas. Persons having paid the latter sum become entitled to practise in London, and within ten miles thereof, by paying four guineas in addition. For an Assistant's certificate, two guineas.

NAVY MEDICAL DEPARTMENT.

Director-General of the Medical Department of the Navy.—Sir John Liddell, Kt., M.D., C.B., F.R.S.

REGULATIONS FOR CANDIDATES FOR THE OFFICE OF ASSISTANT-SURGEON IN THE ROYAL NAVY.

Admiralty, March 1, 1853.

The Right Honourable the Lords Commissioners of the Admiralty are pleased to direct that the following regulations relative to the examination of candidates for the appointment of Assistant-Surgeon in the Royal Navy, shall in future be adopted—

That a candidate for entry into the Royal Navy shall make a written application to that effect, addressed to the Secretary of the Admiralty; on the receipt of which application he will be furnished with the regulations, and a printed form to be filled up by him, to show if he possess the required qualifications.

As vacancies occur, the number of candidates required will be ordered to attend at the Admiralty Office, bringing with them the requisite certificates, showing that they are fully qualified by age, professional ability, etc., when they will be examined by a Board of Medical Officers, to be named by their Lordships.

Such candidates as shall have been found in all respects competent for the appointment of Assistant-Surgeon, will be forthwith nominated to one of the naval hospitals at home, to await appointments to any one of Her Majesty's ships; or, should their services not be immediately required, their names will be duly registered for early appointments, as vacancies may occur.

That no person be admitted as an Assistant-Surgeon in the Royal Navy, who shall not produce a certificate from one of the Royal Colleges of Surgeons of England, Edinburgh, or Dublin, or from the Faculty of Physicians and Surgeons of Glasgow, of his fitness for that office; nor as a Surgeon, unless he shall produce a diploma, or certificate from one of the said Royal Colleges or Faculty, founded on an examination to be passed subsequently to his appointment of Assistant-Surgeon as to his fitness for the situation of Surgeon in the Navy; and in every case the candidate producing such certificate or diploma, shall also undergo a further examination, touching his qualifications in all the necessary branches and points of Medicine and Surgery for each of the steps in the Navy Medical Service; and that previously to the admission

of Assistant-Surgeons into the Navy, it will be required that they produce proof of having received a preliminary classical education, and that they possess in particular a competent knowledge of Latin; also,

That they are of good moral character, the certificate of which must be signed by the clergyman of the parish, or by a magistrate of the district.

That they have served an apprenticeship, or have been engaged for not less than six months in practical pharmacy.

That their age be not less than 20 years, nor more than 26 years.

That they have actually attended an Hospital in London, Edinburgh, Dublin, Glasgow, Aberdeen, Manchester, or Bristol, for eighteen months subsequently to the age of 18, in which Hospital the average number of patients is not less than 100.

That they have been engaged in actual dissections of the human body twelve months; the certificate of which from the teacher must state the number of subjects or parts dissected by the candidate.

That they have attended lectures, etc., [*in accordance with the Table given at page* 316.]

In addition to the tickets for the lectures, certificates must be produced from the professors, etc., by whom the lectures were given, stating the periods (in months) actually attended by the candidates. The time also of actual attendance at an hospital or infirmary must be certified; and the tickets as well as certificates of attendance, age, moral character, etc., must be produced by the candidate previously to his examination.

Although the above are the only qualifications which are absolutely required in candidates for the appointment of Assistant-Surgeon, a favourable consideration will be given to the cases of those who have obtained the degree of M.D. at either of the Universities of Oxford, Cambridge, Edinburgh, Dublin, Glasgow, London, or Aberdeen; or who, by possessing a knowledge of diseases of the eye, and of any branch of science connected with the profession, such as Medical Jurisprudence, Natural History, Natural Philosophy, etc., appear to be more peculiarly eligible for admission into the service, observing, however, that lectures on these or any other subjects cannot be admitted as compensating for any deficiency in those required by the regulations.

By the rules of the service, no Assistant-Surgeon can be promoted to the rank of Surgeon until he shall have served three years (one year of which must be in a ship actually employed at sea), and can produce a diploma from one of the before-mentioned Royal Colleges or the Faculty of Physicians and Surgeons; and it is resolved that not any diploma or certificate of examination from either of the aforesaid Royal Colleges shall be admitted towards the qualification for Surgeon, unless the diploma or certificate shall be obtained on an examination passed after a period of not less than three years' actual service, observing that no one can be admitted to an examination for Surgeon, unless, as hereinbefore mentioned, he can produce a diploma, together with the most satisfactory certificates, that he has performed on the dead body, under the superintendence of a professor or teacher of known eminence, all the capital operations of Surgery, and is perfectly competent to perform any operation with skill and dexterity, and thoroughly acquainted with the anatomy of the parts involved in such operation; without which qualification, no one hereafter can be promoted to the higher branches of the service; and whenever Assistant-Surgeons already in the service (whose Professional education may not be in accordance with the above) obtain leave to study previously to their passing for Surgeon, they will be required on their examination to produce testimonials of their having availed themselves of the period of leave to complete their education agreeably to these regulations generally.

It is also to be observed, that candidates who may be admitted into the Naval Medical Service must serve in whatever ships, etc., they may be appointed to; and that, in the event of their being unable to do so from sea-sickness, their names cannot be continued on the Navy Medical List, nor can they, of course, be allowed half-pay.

Full Pay at Hospitals.—Medical Inspector of Hospitals, on first appointment, 1*l.* 13s. per diem; after 5 years' service, 2*l.* 2s.; Deputy Medical Inspector of Hospitals, on appointment, 1*l.* 7s. 6d.; Staff Surgeons and Medical Storekeepers of Hospitals, on appointment, with less than 20 years' service, 16s. 6d.; above 20 years' service, 1*l.* 0s. 6d.—*When serving afloat.*—Medical Inspector of Hospitals and Fleets, above 5 years' service as such, 2*l.* 2s.; under 5 years' service as such, 1*l.* 11s. 6d.; Deputy Medical Inspector of Hospitals and Fleets, 1*l.* 0s. 0d.; Surgeon of an Hospital ship, 18s.; above 20 years' full pay service, including service as Assistant-Surgeon, 18s.; above 10 years' ditto, 14s.; above 6, 12s.; under 6, 11s. Assistant-Surgeon, in ships in which no Surgeon is borne, above 10 years' full pay service, 10s. 1d.; under 10, 9s. 1d. In ships in which a Surgeon is borne, above 10 years' full pay service, 9s. 7d.; above 3, 8s. 7d.; under 3, 8s. 1d.

Relative Rank of Officers of the Army and Medical Officers of the Navy.—Medical Inspectors of Hospitals and Fleets with Lieutenant-Colonels; Deputy-Medical Inspectors of Hospitals and Fleets with Majors; Surgeons with Captains; and Assistant-Surgeons with Lieutenants.

ARMY MEDICAL DEPARTMENT.

Director-General.—Andrew Smith, Esq., M.D.

Deputy Inspector-General of Hospitals.—Dr. Dumbreck, C.B., Professional Assistant.

Staff-Surgeon, First Class.—H. Pillean, Esq.

Staff-Surgeon, Second Class.—Dr. F. Reid.

Apothecary to the Forces.—F. M. Bassano, Esq.

Chief Clerk.—John Wimbridge, Esq.

1st. In selecting from among the candidates for the Medical Department of the Army, a preference is given to those who can fill up all the blanks in the Schedule of Qualifications, by having the acquirements therein stated. The name of no gentleman can be placed on the list who does not possess a diploma from the Royal College of Surgeons of England, Scotland, or Ireland, or from the Faculty of Physicians and Surgeons of Glasgow, or other corporate body legally entitled to grant a Diploma in Surgery, and who cannot produce testimonials of attendance [*in accordance with the Table given at p.* 316.]

The candidates must be unmarried, not beyond twenty-five years of age, nor under twenty-one years.

Candidates who have had a University education, and have the degree of A.B. or A.M., as well as that of M.D., will be preferred; but a liberal education, and a competent knowledge of the Greek and Latin languages, are indispensably requisite in every candidate.

The greater the attainments of the candidates, the more eligible will they subsequently be deemed for promotion; as selections to fill vacancies, especially in the higher ranks, will be guided more by reference to such acquirements, than to mere seniority.

Although the British schools are specified, it is to be understood that candidates who have received regular education in approved foreign Universities or schools will be admitted to examination.

With the exception of Practice of Physic and Clinical Medicine by one teacher, candidates must have attended separate lecturers for each branch of Medical science.

Before promotion from the rank of Assistant-Surgeon to any higher rank, every gentleman must be prepared for such other examination as may be ordered before a Board of Medical officers.

Diplomas, tickets of attendance on lectures, and certificates of regular attendance by each professor or lecturer, must be lodged at the office for examination and registry, at least one week before the candidate appears for examination; likewise certificates of moral conduct and character,—one of them by the parochial minister, if possible. Baptismal certificates are required at the same time; and, if the parish register cannot be resorted to, an affidavit from one of the parents, or from some near relative who can attest the fact, will be accepted.

The certificate of the Teacher of Practical Anatomy must state the number of subjects or parts dissected by the pupil.

Certificates of lectures and attendance must be from Physicians or Surgeons of the recognized Colleges or Medical Schools of the United Kingdom, or of foreign Universities.

All candidates for Medical appointments are required to be conversant with Cullen's Nosology.

Blank forms to the following effect must be filled up and forwarded, one clear week before the candidate can be admitted for examination:—

"Form of Certificate.—I (Christian and surname at full length) years of age, and a candidate for employment in the Medical Department of the Army, do hereby attest my readiness to engage for general service, whether at home or

abroad, and to proceed on duty immediately on being gazetted. I declare that I am unmarried; and that I labour under no mental or constitutional disease, nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a Medical officer, in any climate."

(Signature).

"I have pursued the under-mentioned course of study, of which I am ready to produce the vouchers for registry, and also a certificate of my age,—namely, I possess certificates of regular attendance at the under-mentioned Hospitals and course of lectures for the number of months stated" (specifying as to Hospitals after the following form)—

The Hospital or Infirmary for months.
The Hospital for Mental Derangement for months.
The Hospital for Diseases of the Eye, for months.
The Lying-in Hospital, for months.

And in reference to certificates specifying the lectures, name of the lecturer, place where the lectures were delivered, and period of months in attendance, of all the courses required by regulations, with any others in addition which he may possess. If in possession of a degree, state the college, university, etc., and the date of graduation.

Note.—All communications to be prepaid, or if not, to be forwarded, addressed outside to "The Right Honourable the Secretary-at-War," with the words "Army Medical Department," at the left-hand corner.

Army Medical Department.—Full-pay, per diem, after actual service (in years)—Inspector-General, twenty-five years, 2*l.*; twenty years, 1*l.* 18s.; ten years, 1*l.* 16s. Deputy-Inspector, according to the same gradations of service, 1*l.* 10s.; 1*l.* 8s., and 1*l.* 4s. Staff-Surgeon, first class, ditto, 1*l.* 4s., 1*l.* 2s., 19s. Regimental-Surgeon and Staff-Surgeon, second class, ditto, 1*l.* 2s., 19s., 15s.; under ten years, 13s. Assistant-Surgeons, ditto, 10s. and 7s. Assistant-Surgeons serving in the Horse, Life, or Dragoon Guards, receive about 1s. per diem in addition to the above rates. Half-pay per diem, after service (in years)—Inspector-General, thirty years, 1*l.*; twenty-five years, 15s.; twenty years, 12s. Deputy-Inspector, thirty years, 18s.; twenty-five years, 14s.; twenty years, 10s.; ten years, 8s.; under ten years, 7s. Staff-Surgeons, thirty years, 16s.; twenty-five years, 13s.; twenty years, 9s. 6d.; ten years, 7s. 6d.; under ten years, 6s. 6d. Regimental-Surgeons and Staff-Surgeons, second class, thirty years, 15s.; twenty-five years, 11s. 6d.; twenty years, 8s.; ten years, 6s.; under ten years, 5s. 6d. Assistant-Surgeons, thirty years, 7s.; twenty-five years, 6s.; twenty years, 5s. 6d.; ten years, 4s.; under ten years, 3s.

EAST INDIA COMPANY'S MEDICAL SERVICE.

REGULATIONS FOR THE ADMISSION OF CANDIDATES FOR THE APPOINTMENT OF ASSISTANT-SURGEON.

All natural-born subjects of Her Majesty, between 22 and 28 years of age, and of sound bodily health, may be candidates for admission into the service of the East India Company as Assistant-Surgeons.

They must subscribe and send in to Dr. Scott, the Physician to the Honourable East India Company, ten days before the period fixed for each examination, a declaration to the following effect:—

"I (christian and surname at full length), a Candidate for employment as an Assistant-Surgeon in the service of the East India Company, do hereby declare that I was years of age on the day of last, and that I labour under no constitutional disease or physical disability that can interfere with the due discharge of the duties of a Medical Officer; and I also attest my readiness to proceed on duty to India within three months of receiving my appointment."

This declaration must be accompanied by the following documents:—1. Proof of age, either by extract from the register of the parish in which the candidate was born, or by his own declaration, pursuant to the Act 5 and 6 William IV. cap. 62. 2. A certificate of moral character from a Magistrate, or a minister of the religious denomination to which the candidate belongs, who has personally known him for at least two preceding years. 3. A diploma in Surgery, or a degree in Medicine, provided an examination in Surgery be required for such degree, from some body competent by law to grant or confer such diploma or degree.

[*For other requirements, see Table, p.* 316.]

Candidates may also, at their option, send in certificates of attendance at any Hospitals, or on any courses of lectures, in addition to the above. Attendance on a course of Military Surgery, and the practical study of surgical operations on the dead body, are recommended.

The examination will include the following subjects: [*see Table, p.* 316.]

The following are the books recommended in—Zoology and Comparative Anatomy—Outlines of the Structure of the Animal Kingdom, by Rymer Jones, or Cours Elémentaire d'Histoire Naturelle, par Milne Edwards. Botany—Lindley's School Botany, or Lindley's Elements of Botany. The examination will be conducted—1. By means of written questions and answers. 2. By object examinations and experiments, when the subject admits of such tests. 3. By practical examination of patients, and by operations on the dead body. 4. By *vivâ voce* examination. The persons who shall be pronounced by the examiners to be the best qualified in all respects, will be appointed to fill the requisite number of appointments as Assistant-Surgeons in the East India Company's service, and, so far as the requirements of the service will permit, they will have the choice of the Presidency in India to which they shall be appointed, according to the order of merit in which they stand on the list resulting from such examination. All Assistant-Surgeons are required to subscribe to the Military or Medical, and Medical Retiring Funds, at the Presidencies to which they may be respectively appointed, and to the Military Orphan Society also, if appointed to Bengal. All Assistant-Surgeons who shall neglect or refuse to proceed to India under the orders of the Court of Directors, within three months from the date of their appointment, will be considered as having forfeited it, unless special circumstances shall justify a departure from this regulation. The examinations will take place in the months of January and July in each year, and due notice will be given by public advertisement of the days appointed, and of the probable number of candidates to be selected.

The Examiners for Assistant-Surgeons in the Honourable East India Company's Service, having received many inquiries as to the object and extent of the Examination in Comparative Anatomy, Zoology, and Botany, have considered it desirable to announce that their objects are,—

1. To ascertain who of the candidates have devoted especial attention to any of these sciences, and are hence qualified to undertake duties requiring a knowledge of them, as well as the general duties of their profession. Proficiency in these sciences will, in classifying the candidates by merit, be entitled to great consideration. 2. To encourage all candidates to acquire an elementary knowledge of the structure and affinities of the principal natural families of animals and of plants, with the general plan upon which these are constructed, and the functions and relations of their most important organs. 3. To promote the study of Natural History as a most important adjunct or preliminary to a liberal Medical education; that of Comparative Anatomy, Zoology, or Botany, if properly cultivated, by means of specimens, for even a short period, being eminently calculated to develop habits of close observation, and to strengthen those powers of reason upon observed facts, which must be habitually exercised by Medical men everywhere, but which must be exercised with the greatest energy and promptitude by those who practise in a tropical climate, and who are often thrown wholly upon their own resources. The general examination in these sciences will be elementary, and will embrace a very limited range of technical terms. At the written examination, a considerable number of questions will be put, with the view of allowing each candidate to select such subjects as he has attended to, and, thereby, of enabling the Examiners to ascertain the particular departments of science in which the verbal examination should be conducted. With those candidates who have attained proficiency in any branch of these sciences, the verbal examination will be pursued in the branch selected, so as to ascertain the full extent of their knowledge.

SPECIALTY HOSPITALS AND SCHOOLS IN THE METROPOLIS.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

Consulting-Physicians.—Sir J. Forbes, Dr. C. J. B. Williams, and Dr. Walshe.

Physicians.—Dr. Hamilton Roe, Dr. Theophilus Thompson, Dr. Cursham, Dr. Cotton, and Dr. Quain.

Assistant-Physicians.—Dr. Scott Alison, Dr. Pollock, and Dr. Edward Smith.

Pupils are admitted to the hospital practice.

Fees for six months, 5*l.* 5s.; perpetual, 10*l.* 10s.

Four clinical assistants reside in the hospital. Pupils are eligible to these appointments, which are held for six months.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, CHARING-CROSS.

Surgeons.—Mr. C. G. Guthrie, Mr. H. Hancock.

Assistant-Surgeons.—Mr. Jabez Hogg, Mr. H. Power.

House-Surgeon.—Mr. John H. Wright.

The hospital contains 30 beds, and during the past year 5754 out-patients, and 184 in-patients, have been treated.

The Medical Officers attend on Mondays, Wednesdays and Fridays, from one to two o'clock.

Operations on Friday, at half-past one o'clock; and lectures are delivered on the Anatomy and Diseases of the Eye.

Fee for attendance on the practice and lectures, 5*l.* 5s.

ROYAL LONDON OPHTHALMIC HOSPITAL.

Physician—Mr. F. J. Farre.

Surgeons—Mr. G. W. Mackmurdo, Mr. J. Dixon, Mr. G. Critchett, Mr. W. Bowman, and Mr. A. Poland.

Assistant-Surgeon—Mr. J. C. Wordsworth.

House-Surgeon—Mr. R. H. Moon.

Secretary—Mr. C. Gordelier.

Number of patients in 1855, 9974.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S INN LANE.

Surgeons.—Mr. H. Haynes Walton, Mr Alfred Smee, Mr. R. Taylor.

Attendance daily at one o'clock. Operations on Thursday, at half past one.

Fee to pupils £2 2s. for six months, £3 3s. perpetual. Qualified Practitioners are invited to attend.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, NEW-ROAD, MARYLEBONE.

Consulting Physician.—Dr. Paget, F.R.S.

Consulting Surgeon.—Charles Hawkins, Esq., F.R.C.S.

Medical Officers for the In-Patients.—Dr. Blakely Brown and Dr. Metcalfe Babington.

Medical Officer for the Out-Patients.—Joseph Cholmondeley, Esq.

Resident Pupils are admitted for three months, on the payment of thirty guineas, including board and lodging.

HOSPITAL FOR SICK CHILDREN.

Physicians—Dr. West and Dr. Jenner.

Assistant-Physicians—Dr. Babington and Dr. Reynolds.

Surgeon—Mr. Athol Johnson.

The hospital contains 30 beds. Days of attendance of the Physicians and Assistant-Physicians, Mondays, Tuesdays, Thursdays, and Fridays, at 9 a.m.; of the Surgeon, Wednesdays and Saturdays, at 9. Pupil's fee for three or six months' attendance or practice, 3*l.* 3s.

CITY ORTHOPÆDIC HOSPITAL.

Surgeon—Mr. E. J. Chance.

Assistant-Surgeon—Mr. N. H. Stevens.

BETHLEM HOSPITAL FOR LUNATICS.

Resident Physician and Medical Superintendent—Dr. W. C. Hood.

Surgeon—Mr. W. Lawrence.

Resident Apothecary—Dr. W. Helps.

Steward—Mr. G. Haydon.

Clerk—Mr. A. M. Jeaffreson.

ST. LUKE'S HOSPITAL FOR LUNATICS.

Physicians—Dr. Alex. J. Sutherland, F.R.S., Dr. Henry Munro.

Surgeon—Mr. James Luke.

Resident Medical Superintendent—Mr. Henry Stevens.

The practice of this Hospital is open to a limited number of pupils.

Lectures on the Nature and Treatment of Insanity are delivered annually, by Dr. Sutherland, and clinical lectures are given from time to time.

Clinical clerks are also selected from such pupils as have completed three months' attendance on the hospital practice.

Sessions of three months each commence on October 1st, January 1st, and May 1st, in every year. Fee for each session, £3 3s.

LONDON FEVER HOSPITAL.

Physicians—Dr. Tweedie and Dr. Southwood Smith.

Assistant Physicians—Dr. Jenner and Dr. Murchison.

Resident Medical Officer—Dr. G. Buchanan.

Assistant Medical Officer—Mr. J. D. Scurrah.

The Hospital has accommodation for 200 beds. Average number of patients this year, 130. Admitted during 1855, 1083.

BRITISH LYING-IN HOSPITAL.

Physician—Dr. R. Lee.

Surgeons—Mr. B. Brookes, Dr. J. Clarke.

Secretary—Mr. Edwin Phillips.

Matron—Mrs. Ditchman.

ROYAL MATERNITY CHARITY,

Physicians—Dr. T. L. Blundell, Dr. Hall Davis, Dr. S. Griffith,

Thirty-five midwives are employed.

Average number of deliveries, 3860 annually.

In the year 1857 occurs the centenary, or hundredth anniversary of the charity, an event which it is proposed to celebrate by a special festival.

LOCK HOSPITAL AND ASYLUM, HARROW-ROAD.

Physician—Dr. A. Sayer.

Surgeons—Mr. S. Lane, and Mr. H. Lee.

Assistant-Surgeon—Mr. J. R. Lane.

House-Surgeon—Mr. H. Tyrwhit Smith.

Apothecary—Mr. W. S. Watson.

Matrons—Mrs. Clarkson and Mrs. Fuller.

ST. MARYLEBONE EYE AND EAR INSTITUTION, 1, ST. JOHN'S-PLACE, LISSON-GROVE.

Surgeons—Mr. Henry Obré and Mr. John Woolcott.

Days of attendance, Mondays, Wednesdays, and Fridays at half-past twelve o'clock.

Members of the Medical Profession are permitted to see the practice of this Institution on presenting their cards.

PHARMACEUTICAL SOCIETY, 17, BLOOMSBURY SQUARE.

Chemistry and Pharmacy: Mr. Redwood, Tuesday, Wednesday, and Friday, at half-past eight A.M.

Botany and the Natural History of Drugs: Mr. Bentley, Saturday and Monday, at half past eight A.M.

The Laboratory for Practical Instruction in Pharmaceutical Chemistry, under Professor Redwood, will be opened on Thursday, the 2nd of October. The season extends from the 1st of October to the end of July, and pupils may enter at any period during the season.

Fees.—Five months, £15 15s.; four months, £13 13s.; three months, £11 11s.; two months, £9 9s.; one month, £6 6s. Students not registered in connexion with the Society pay a fee of one guinea for attendance at each of the courses of lectures.

The Board of Examiners.—The Board of Examiners meet on the third Tuesday in every month, excepting May and September, for examinations and granting certificates of qualification to practise pharmacy. Candidates are required to give notice to the Secretary, before the 1st day of the month, of their intention to present themselves for examination. Fee for minor examination and registration as an assistant, £5 5s.; or if previously registered as an apprentice or student, £3 3s. For major examination and registration as a pharmaceutical chemist, £10 10s.; or, if previously registered as an assistant, £5 5s.

SYNOPSIS OF REQUIREMENTS FOR DEGREES, APPOINTMENTS,

	Descriptive and Surgical Anatomy.	General Anatomy and Physiology.	Comparative Anatomy.	Pathological Anatomy.	Chemistry.	Botany.	Materia Medica and Pharmacy.	General Pathology.	General Therapeutics.	Forensic Medicine.	Hygiene.	Midwifery and Diseases of Women and Children.	Surgery.	Medicine.
London University, 1st Examination for B.M.	A Course of Lectures on each of four of the Subjects in the above headings.													
Examined in (a)	—	—			—	—	—							
Examination for honours		—			—	—	—							
Second examination	A Course of Lectures on two of each of the above Subjects, exclusive of the four in 1st Examination.													
Examined in (b)		—						—	—	—	—	—	—	—
Examination for honours		—	—									—		—
Doctor of Medicine (c)														—
Examined in														—
Royal Coll. of Physicians Education must comprise (extending over a period of 5 years)	—	1st Exam. —			—	—	—	2nd Exam. —	3rd Exam. —	—		—	—	3 yrs.
Royal College of Surgeons: Studies														
Lectures		3 Winter Sessions.			1 Course		1 Summer Session.					1 Summer Session.	2 Win. Ses.	1 Cse.
Society of Apothecaries: Lectures — 1st Year, Winter Session		—			—									
,, ,, Sumr.						—	—					—		
,, 2nd Year, Winter		—												—
,, ,, Sumr.												—		
,, 3rd Year, Winter				—										—
Navy Medical Depart. (d)		12 mos.	6 mos.		3 mos.	3 mos.	6 mos.					6 mos.	12 mos.	ims
Army and Ordnance Medical Department (d) (e)	12 mos.	6 mos.			12 mos.	3 mos.	3 mos.					6 mos.		
East India Company's Medical Service (f)							2 Courses. 6 Months.					1 Course.		
Examined in		—	—			—	—		—		—	—	—	—

(a) And to translate passages from the Latin Pharmacopœia; having passed Examination for B.A. (b) And to translate passages of the Latin Pharmacopœia into age of 18. (c) And 1 Course of Natural Philosophy, and 1 of Logic. (f) And 3 months' instruction

HOSPITALS AND SCHOOLS OF SURGERY AND MEDICINE

FROM WHICH CERTIFICATES OF THE PROFESSIONAL EDUCATION OF CANDIDATES FOR THE FELLOWSHIP WILL BE RECEIVED BY

THE ROYAL COLLEGE OF SURGEONS.

HOSPITALS.

England.—London.—St. Bartholomew's—St. Thomas's—Westminster—Guy's—St. George's—London—Middlesex—University College—Charing Cross—King's College—St. Mary's, Paddington. Provincial: Bath United Hospital—Bedford General Infirmary—Birmingham General Hospital—Queen's Hospital, Birmingham—Bristol Infirmary—Addenbrook's Hospital, Cambridge—Derbyshire General Infirmary—Devon and Exeter Hospital—Gloucester Infirmary—Hull Infirmary—Kent and Canterbury Hospital—Leeds General Infirmary—Leicester Infirmary—Liverpool Infirmary—Liverpool Northern Hospital—Manchester Royal Infirmary—Newcastle-upon-Tyne Infirmary—Norfolk and Norwich Hospital—Northampton General Infirmary—Nottingham General Hospital—Radcliffe Infirmary, Oxford—Salisbury General Infirmary—Salop Infirmary—Sheffield General Infirmary—Stafford County General Infirmary—Sussex County Hospital—Winchester County Hospital—Worcester Infirmary—York County Hospital.

Ireland.—Dublin: Richmond—Dr. Steevens's—City of Dublin—Mercer's—Meath—Jervis street—St. Vincent's. Provincial: Belfast Hospital—North and South Infirmaries, Cork.

Scotland.—Edinburgh: Royal Infirmary. Provincial: Glasgow Royal Infirmary—Aberdeen Royal Infirmary.

SCHOOLS.

England.—London—St. Bartholomew's—St. Thomas's—Guy's—St. George's—London—Middlesex—University College—King's College—Westminster—Charing Cross—Grosvenor Place—Kinnerton Street. Provincial: Royal School of Medicine and Surgery, Birmingham—Old Park Medical School, Bristol—Hull and East Riding School of Medicine—Leeds School of Medicine—Liverpool Infirmary School of Medicine—Royal School of Medicine and Surgery, Manchester—Chatham Street School of Medicine, Manchester—Newcastle-upon-Tyne College of Medicine—Newcastle-upon-Tyne School of Practical Science—Sheffield Medical Institution—York School of Medicine.

Ireland.—Dublin.—Royal College of Surgeons—Trinity College—Apothecaries' Hall—School of Medicine, Park Street—Carmichael School of Medicine—Dublin School of Medicine—Original School of Medicine, Peter Street. Provincial: The Queen's Colleges of Belfast, Cork, and Galway—South Mall School of Medicine, Cork. The several Schools recognised by the Royal College of Surgeons in Ireland.

Scotland.—Edinburgh.—University. Provincial: University, Glasgow—King's College, Aberdeen—Marischal College and University, Aberdeen. The several Schools recognised by the Royal College of Surgeons of Edinburgh.

Schools and Hospitals in the British Colonies, etc.—The Medical College, Calcutta—The Church University, Toronto. In Foreign Countries: Paris—Montpellier—Strasburgh—Berlin—Vienna—Heidelberg—Bonn—Gottingen—Leyden—Liege—Pavia—Stockholm—New York—Philadelphia.

ETC., BY EXAMINING BODIES AND DEPARTMENTS IN ENGLAND.

Dissection.	Practical Chemistry.	Practical Pharmacy.	Attended Labours.	Medical Practice.	Surgical Practice.	Natural History.	Demonstrations.	Clinical Medicine.	Clinical Surgery.	Military Surgery.	Philosophy, Logic, and Moral Philosophy.	
9 months	1 Course	q. s.										London University, 1st Examination for B.M.
												Examined in (a).
												Examined for honours.
6 months			6	12 mos.	12 mos.							Second examination.
												Examined in (b).
												Examination for honours.
				2 yrs., or 1 yr. & 3 yrs. in practice (c).								Doctor of Medicine (c).
											—	Examined in.
						—						Royal Coll. of Physicians Education must comprise (extending over a period of 5 years).
3 Winter Sessions		6 mos.		1 Win. and 1 Sum. Ses.	3 Win. and 2 Sum. Ses.							Royal College of Surgeons: Studies.
			After Lects.				3 Winter Sessions.	1 Win. and 1 Sum. Ses.	3 Win. and 2 Sum. Ses.			Lectures.
							—					Society of Apothecaries: Lectures—1st Year, Winter Session.
							—					,, ,, Summr.
			—	—								,, 2nd Year, Winter.
	—		—	—				—				,, ,, Summr.
—			—	—				—				,, 3rd Year, Winter.
12	3 mos.			12 mos.				6 mos.(Lect.)	6 mos.(Lect.)	6 mos.		Navy Medical Depart. (d).
	6 mos.	3 mos.	3 mos.	1 mos., and 8 mos. Lect.		3 mos.	12 months		8 mos.(Lect.)	6 mos.		Army and Ordnance Medical Department (d)(e)
			6	1 Course, 6 mos.				6 mos.	6 mos.	6 mos.		East India Company's Medical Service (f).
						—						Examined in.

English, and of the English Pharmacopœia into Latin. (c) Or, if M.B., 5 years in practice. (d) Must have attended an Hospital 18 months subsequently to the
n the Treatment of the Insane, and 3 months on Ophthalmic Disease and practical knowledge of Cupping.

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INSTITUTIONS FROM WHICH
THE LONDON UNIVERSITY
IS EMPOWERED TO RECEIVE CERTIFICATES FOR DEGREES
IN MEDICINE.

ENGLAND.

Bedford.—General Infirmary—Fever Hospital.

Birmingham.—The Queen's College—The Birmingham General Hospital—Sydenham College.

Bristol.—The Bristol Medical School—The Bristol Infirmary—St. Peter's Hospital.

Haslar.—The Royal Naval Hospital.

Hull.—Hull and E. R. of York School of Medicine and Anatomy.

Leeds.—The Leeds School of Medicine—The Leeds General Infirmary.

Leicester.—The Leicester Infirmary.

Liverpool.—The Liverpool Infirmary—The Liverpool Fever Hospital and Infirmary.

London.—University College—King's College—The London Hospital—The Middlesex Hospital—School of Anatomy, adjoining St. George's Hospital—The Charing Cross Hospital—St. Thomas's Hospital—St. Bartholomew's Hospital—The Westminster Hospital—Guy's Hospital—St. George's Hospital—The Physicians of the St. Marylebone Infirmary—The Royal College of Chemistry—St. Mary's Hospital.

Manchester.—Royal School of Medicine and Surgery—The Union Hospital—The Royal Infirmary—School of Medicine in Chatham Street.

Newcastle-upon-Tyne.—College of Medicine in connexion with the University of Durham—College of Medicine and Practical Science.

Northampton.—General Infirmary.

Nottingham.—The General Hospital near Nottingham.

Sheffield.—The Sheffield Medical Institution.

York.—The York School of Medicine.

SCOTLAND.

Aberdeen.—King's College and University.

Edinburgh.—The University of Edinburgh—The Minto House Dispensary—The Royal Infirmary.

Glasgow.—The University of Glasgow. The Andersonian Institution—The Royal Infirmary.

IRELAND.

The Queen's Colleges in Ireland.

Cork.—The Cork Recognised School of Medicine—The Cork North Infirmary, and the Cork South Infirmary, in conjunction.

Dublin.—Original School of Anatomy, etc., Peter Street—School of Physic in Ireland—Apothecaries' Hall of Ireland—School of Medicine, Park Street—Carmichael School of Anatomy, etc.—Theatre of Anatomy, etc., 27, Peter Street—St. Vincent's Hospital—Mercer's Hospital—Jervis Street Hospital—Dublin School of Anatomy, etc., Digges Street—Royal College of Surgeons in Ireland—Meath Hospital—City of Dublin Hospital—Coombe Lying-in Hospital—Dr. Steevens's Hospital.

Maryborough.—Queen's County Infirmary.

Malta.—The University of Malta.

Ceylon.—The Military Hospital in the Island of Ceylon.

Bengal.—The Medical College of Bengal.

Canada.—The University of M'Gill College, Montreal—The St. Lawrence School of Medicine, Montreal.

DAYS AND HOURS OF LECTURE AT

—	St. Bartholomew's.	St. Thomas's.	Guy's.	Westminster.	St. George's.	Grosvenor - place School of Anatomy and Medicine.
Anatomical Demonstrations	Daily, 10½ to 12.	Daily, 9 to 3.	Daily (ex.Tues.), 2.	Daily, 10 to 2.	Daily.	Daily.
Anatomy, Descriptive and Surgical	Daily (ex. Sat.), 2½.	Daily, 9.	Daily.	T., Th., 9; M., W., F., 10.	T., Th., S., 2¾.	Daily, 11.
Structural and General Anatomy and Physiology	Daily	M., Th., S., 10.	T., W., Th., S., 9.	Daily (ex. Sat.), 2.	M., W., F., 2¾.	Daily (ex. Sat.), 9.
Chemistry	M., W., F., 10.	M., W., F., 10.	T., Th., S., 11.	M., W., F., 9.	T., Th., S., 11½.	M., W., F., 3.
Materia Medica and Therapeutics	T., Th., S., 9.	M., W., F., 8.	T., Th., S., 2.	M., T., Th., F., 3.	Daily (ex. Sat.), 11.	Daily (ex. Sat.), 4.
Principles and Practice of Medicine	M., W., F., 3½.	M., W., F., 4.	M., W., F., 3½.	Daily (ex. Sat.), 4.	M., W., F., 9.	T., W., Th., 4.
Principles and Practice of Surgery	M., W., Th., 7.	M., W., F., 3.	T., Th., S., 3½.	T., W., F., 3.	M., W., F., 4.	M., F., S., 4.
Midwifery and Diseases of Women and Children	Daily (ex. Sat.), 3.	M., W., Th., F., 9.	Daily, ¼ to 9.	T., W., Th., F., 4.	M., W., F., 9.	Daily (ex. Sat.), 2¾.
Botany...	M., W., F., 9.	T., Th., S., 10.	T., Th., S., 11½.	M., W., F., 11½.	Daily (ex. Sat.), 12.	M., W., F., 9.
Medical Jurisprudence	T., Th., S., 10.	T., Th., S., 8.	T., Th., S., 10.	M., T., Th., F., 2.	M., W., Th., F., 10.	Daily, 8.
Comparative Anatomy	M., W., F., 10.	T., S., 11.	—	—	—	T., Th., Sat., 10.
Experimental and Descriptive Natural Philosophy	—	—	—	W., 3.	—	M., 12.
Practical Pathology	Occasional, 12.	T.,Th.,S.,4; P.-M. Exam., 4.	—	P.-M. Exam., 1½	—	S., 9.
Microscopical Anatomy	—	S., 3.	—	—	Twice weekly in Winter.	—
Dentistry	—	T., 11.	—	W., 10.	—	—
Ophthalmic Surgery...	—	—	W., F., 3.	—	In Summer.	—
Practical Chemistry	M.,T.,Th.,F.,10 to 1	M., W., F., 10.	M., W., F., 10 to 2.	—	Daily 2½.	T., Th., S., 9½.
Operative Surgery	—	—	—	—	—	Daily, 11.
Demonstrations of Cutaneous Diseases...	—	—	M., 1.	—	—	—
Logic	—	—	—	—	—	—

SCHOLARSHIPS, EXHIBITIONS, PRIZES, ETC.

LONDON UNIVERSITY.

Scholarships—1 of 50*l.* at LL.B. degree; 5 of 50*l.* at M.B. degree.
Exhibitions—3 of 30*l.* at 1st Examination for M.B.; 2 of 30*l.* at Matriculation.
Gold Medals.—1 of 20*l.* at LL.D. degree; 7 of 5*l.* at M.B. degree; 7 of 5*l.* at 1st Examination for M.B.
Prizes of Books——3 of 5*l.* at B.A. degree; 3 of 5*l.* at Matriculation.

KING'S COLLEGE.

Scholarships—Nine; the Warneford (2 of 25*l.*), the College (1 of 40*l.*, 1 of 30*l.*, 3 of 20*l.*), the Daniell (20*l.*), the Divinity (30*l.*).
Prizes—The Leathes (interest of 300*l*), the Warneford (2 of 25*l.* and 15*l.*).

UNIVERSITY COLLEGE.

Exhibition—The Longridge, 40*l.*
Scholarships—Andrews, two; 1 of 100*l.*, 1 of 60*l.*
Medals—Fellowe's clinical; one gold, one silver, and certificates of honour.
,, Liston; gold, and certificates of honour.

ST. BARTHOLOMEW'S HOSPITAL.

Scholarships—Two, of 45*l.*
Prizes—Seven; the Wix, the Hichen's, the President's, the Treasurer's, the Bentley, the Foster, Mr. Lloyd's.

ST. THOMAS'S HOSPITAL.

Matriculation Examination—Three Prizes of 20*l.*
Prizes—The Treasurer's (one of 21*l.* and one of 10*l.* 10s.) for 1st year's Students; the President's (one of 21*l.*); and Dr. Roots's (one of 10*l.* 10s.), for 2nd year's Students.
Three of 5*l.* to best Clinical Clerks, 2nd year's men.
3rd and 4th year's men:—one of 15*l.* to most meritorious Clinical Assistant.
The Cheselden Medal; Mr. Smith's Prize of 5*l.* for best Essay on "Neuralgia;" and the Treasurer's Gold Medal for Proficiency and Good Conduct.

GUY'S HOSPITAL.

Dresserships, Clinical Clerkships, Ward Clerks, Dressers' Reporters, Obstetric Residents, and Dressers in the Eye Ward.

WESTMINSTER HOSPITAL.

Prizes—Two of 5*l.* 5s.

ST. GEORGE'S HOSPITAL.

Exhibitions—Three; one of 20*l.*, one of 40*l.*, one of 50*l.*
Prizes—Four; Sir B. Brodie's, Dr. Chambers', the Thompson, Sir Charles Clarke's, the Bishop of Bath and Wells', and Mr. Lewis Powell's.
Curators—2 with salary of 50*l.*
Registrars— ,, 20*l.*
} On recommendation of medical School Council.

LONDON HOSPITAL.

Prizes—Two gold.
Dresserships—Three, for twelve months.

MIDDLESEX HOSPITAL.

Prizes—Three, of 10*l.* 10s.; and a prize by Oscar Clayton, Esq.

CHARING-CROSS HOSPITAL.

Scholarships—Free.
Medals—Three; the Gold, the Governor's General Proficiency, and the Governor's Clinical.

ST. MARY'S HOSPITAL.

Prize—(10*l.*) Mr. Spencer Smith's.
Medal—Dr. Bird's Gold.

THE METROPOLITAN SCHOOLS.

London.	Middlesex.	University College.	Charing Cross.	King's College.	St. Mary's.	—
Alt. days, 11¼.	M., T., Th., F., 4.	Daily.	Daily.	Daily (ex. M.), 9.	Daily.	Anatomical Demonstrations.
Daily (ex W.), 9¼.	Daily (ex. W.), 12.	Daily, 9.	Daily (ex. Sat.), 8½.	Daily (ex. M.), 9.	Daily, 10¼.	Anatomy, Descriptive and Surgical.
M., 4; T., Th., 3.	M., W., F., 3.	Daily, 10.	Daily (ex. Sat.), 3½.	M., W., Th., F., 4.	Daily, 2½.	Structural and General Anatomy and Physiology.
M., W., F., 10½.	M., W., F., S., 11.	Daily (ex. Sat.), 11.	T., Th., S., 9½.	Daily (ex. Sat.), 3.	T., Th., S., 9.	Chemistry.
T., W., F., 8½.	Daily (ex. Sat.), 3.	Daily (ex. Sat.), 4.	Daily (ex. M.), 9.	T., W., Th., F., 10½.	—	Materia Medica and Therapeutics.
T., Th., S., 10¼.	M., W., F., 9.	Daily, 5.	M., W., Th., 2½.	T., Th., S., 5.	M., W., F., 9.	Principles and Practice of Medicine.
M., W., F. 3.	T., Th., S., 9.	M., T., Th., F., 4.	M., W., F., 9½.	M., W., F., 5.	M., W., F., 3¾.	Principles and Practice of Surgery.
M., T., Th., F., 3.	Daily (ex. M.), 4.	Daily (ex. Sat.), 12.	M., T., Th., F., 2.	M., W., Th., F., 9.	—	Midwifery and Diseases of Women and Children.
M., W., F., 11	T., W., Th., S. 11.	Daily (ex. M.), 8.	Daily, 10.	T., W., Th., F., 12.	—	Botany.
Daily (ex S.), 9½.	Daily (ex. M.), 9.	M., T., Th., F., 10.	M., W., F., 3.	M., T., W., Th., 4.	—	Medical Jurisprudence.
—	T., F., 10	Daily (ex. Sat.), 3.	T., Th., S., 3.	M., W., F., 10½.	—	Comparative Anatomy.
—	—	M., W., F., 4¼.	W., Th., F. 11¼.	W., Th., F., 11¼.	—	Experimental and Descriptive Natural Philosophy.
P.-M. exam., 12½.	M., 10½.	T., W., F., 9.	—	—	S., 11½.	Practical Pathology.
—	S., 11.	Daily (ex. Sat.), 3.	—	—	—	Microscopical Anatomy.
12 Lectures, 7 p.m.	—	T., Th., 6.	—	—	—	Dentistry.
—	—	—	—	—	—	Ophthalmic Surgery.
T., Th., S., 10¼.	M., W., F., 11.	Daily (ex. Sat.), 11.	T., Th., S.	Daily 10¼.	—	Practical Chemistry.
—	—	—	—	—	—	Operative Surgery.
—	—	—	—	—	—	Demonstrations of Cutaneous Diseases.
—	—	T., W., F., 10¼.	—	M., T., 11¼.	—	Logic.

Resident Medical Officers (4), Non-Resident (2), a Medical and Surgical Registrar, Clinical Clerks, and Dressers, all open to competition among qualified perpetual pupils, without extra fee.

GROSVENOR-PLACE, SCHOOL OF ANATOMY AND MEDICINE.

(Adjoining St. George's Hospital.)

Prizes—The Surgical and Medical Clinical.

QUEEN'S COLLEGE, Birmingham.

Fellowships—(all members holding a diploma are eligible.)

Scholarships—the Warneford (4).

Medals—the Warneford (2), the Governor's Gold (2).

Prizes—the Ratcliff 10*l.* 10s., the Ingleby 5*l.* 5s.

SYDENHAM COLLEGE, Birmingham.

Prize for General Proficiency.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

Scholarship—(10*l.* 10s.) with six months' free residence, dressership, and clerkship.

Free Board and Residence to four pupils for six months.

MANCHESTER SCHOOL OF MEDICINE AND SURGERY.

Scholarships—Three; of 20*l.*, 15*l.*, and 10*l.*

NEWCASTLE-ON-TYNE COLLEGE OF MEDICINE.

(In Connexion with the University of Durham.)

Exhibition—One 15*l.* for two years.

Scholarships—in University of Durham.

BRISTOL ROYAL INFIRMARY.

Gold Medals—Two; of 5*l.* 5s., and about 7*l.* 7s., in money.

Besides the above, Prizes *and* Certificates of Merit *are generally given in all the Classes.*

MEETINGS OF SCIENTIFIC SOCIETIES IN LONDON.

Botanical Society, 20, Bedford-street, 1st Friday from November.

Chemical Society, 5, Cavendish-square, 1st and 3rd Monday from November.

Epidemiological Society, 1st Monday, from November.

Geological Society, Somerset House, 1st and 3rd Wednesday from November.

Linnæan Society, Soho-square, 1st and 3rd Tuesday from November.

Medical Society of London, 32a, George-street, Hanover-square, every Saturday from November.

Microscopical Society, 21, Regent-street, 4th Wednesday from November.

North London Medical Society, 2nd and 4th Wednesday from November.

Pathological Society, 33, George-street, Hanover-square, 1st and 3rd Tuesday from November.

Pharmaceutical Society, 17, Bloomsbury-square, 1st Wednesday from November.

Royal Botanic Society, Regent's-park, Saturdays, from November.

Royal Institution, Albemarle-street, Fridays, from January to June.

Royal Medical and Chirurgical Society, 53, Berners-street, fortnightly, from the 2nd Tuesday of November.

Royal Society, Somerset House, Thursdays, from November to June.

Royal Society of Literature, 4, St. Martin's-place, 2nd and 4th Wednesdays from November.

Statistical Society, 12, St. James's-square, 3rd Monday from November.

Western Medical and Surgical Society, 1st and 3rd Friday from November.

Zoological Society, 11, Hanover-square, 2nd and 4th Tuesday and 1st Thursday from November.

THE EXAMINING MEDICAL BODIES IN SCOTLAND.

SESSION 1855-56.

UNIVERSITY OF EDINBURGH.

STATUTES OF THE UNIVERSITY OF EDINBURGH RELATIVE TO THE DEGREE OF M.D., SANCTIONED ON 27TH OCTOBER, 1846.

Sect. I.—No one shall be admitted to the examinations for the degree of Doctor of Medicine who has not been engaged in Medical study for four years, during at least six months of each, in the University of Edinburgh, or in some other University where the degree of M.D. is given; unless, in addition to three Medical Sessions so constituted, he has attended, during at least six winter months, the Medical or Surgical practice of a general hospital, which accommodates at least eighty patients, and during the same period a course of Practical Anatomy.

Sect. II.—No one shall be admitted to the examinations for the degree of Doctor who has not given sufficient evidence. 1. That he has studied, once at least, each of the following departments of Medical Science, under Professors of Medicine, in this or in some other University, as already defined, viz.:—Anatomy, Chemistry, Materia Medica and Pharmacy, Institutes of Medicine or Physiology, Practice of Medicine, Surgery; Midwifery, and the Diseases peculiar to Women and Children; General Pathology, or in schools where there is no such course, a three months' Course of Lectures on Morbid Anatomy, together with a supplemental Course of Practice of Medicine, or Clinical Medicine; Practical Anatomy (unless it has been attended in the year of extra-academical study allowed by Sect. I.) During courses of six months. Clinical Medicine, that is, the treatment of patients in a public hospital, under a Professor of Medicine, by whom lectures on the cases are given, during courses of six months, or two courses of three months. Clinical Surgery, Medical Jurisprudence, Botany, Natural History, including Zoology, during courses of at least three months. 2. That in each year of his academical studies in Medicine, he has attended at least two Six Months' Courses of Lectures, or one of these and two Three Months' Courses. 3. That, besides the course of Clinical Medicine already prescribed, he has attended, for at least six months of another year, the Medical or Surgical Practice of a general hospital, either at Edinburgh or elsewhere, which accommodates not fewer than eighty patients. 4. That he has been engaged, for at least six months, by apprenticeship or otherwise, in compounding and dispensing drugs at the Laboratory of an Hospital, Dispensary, member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a professional chemist or druggist. 5. That he has attended, for at least six months, by apprenticeship or otherwise, the out-practice of a hospital, or the practice of a dispensary, Physician, Surgeon, or member of the London or Dublin Society of Apothecaries.

Sect. III.—Attendance on the Lectures of Teachers of Medicine in the Hospital Schools of London, or School of the College of Surgeons in Dublin, or of teachers of Medicine in Edinburgh, recognised as such by the Royal Colleges of Physicians and Surgeons of Edinburgh (in accordance with regulations to be adopted by these Colleges jointly, and approved of by the Patrons of the University), shall, to the extent of one-third of the whole departments required by Section II., Clause 1, to be studied by candidates, be held equivalent to attendance under Professors in this or in some other University, as already defined. And such attendance shall be available to candidates to the extent of one of the four years of study required by Section I., provided it has embraced, in one year, at least two six months' courses of lectures, or one of these and two three months' courses.

Sect. IV.—No one shall obtain the degree of doctor who has not studied, in the manner already prescribed, for at least one year previous to his graduation, in the University of Edinburgh.

Sect. V.—Every candidate must deliver, before the 31st of March of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine—1. A declaration, in his own handwriting, that he is twenty-one years of age, or will be so before the day of graduation; and that he will not be then under articles of apprenticeship to any surgeon or other master. 2. A statement of his studies, as well in literature and philosophy as in medicine, accompanied with proper certificates. 3. A medical dissertation composed by himself, in Latin or English; to be perused by a professor, and subject to his approval.

Sect. VI.—Before a candidate be examined in Medicine, the Medical Faculty shall ascertain, by examination, that he possesses a competent knowledge of the Latin language.

Sect. VII.—If the Faculty be satisfied on this point, they shall proceed to examine him, either *vivâ voce*, or in writing; first, on Anatomy, Chemistry, Botany, Institutes of Medicine, and Natural History, bearing chiefly on Zoology; and, secondly, on Materia Medica, Pathology, Practice of Medicine, Surgery, Midwifery, and Medical Jurisprudence.

Sect. VIII.—Students who profess themselves ready to submit to an examination on the first division of these subjects, at the end of the third year of their studies, shall be admitted to it at that time.

Sect. IX.—If any one, at these private examinations, be found unqualified for the Degree, he must study during another year two of the subjects prescribed in Section II., Clause 1, in this or in some other University, as above defined, before he can be admitted to another examination.

Sect. X.—Should he be approved of, he will be allowed, but not required, to print his Thesis; and, if printed, forty copies of it must be delivered before the 25th day of July to the Dean of the Medical Faculty.

Sect. XI.—If the Candidate have satisfied the Medical Faculty, the Dean shall lay the proceedings before the Senatus Academicus, by whose authority the Candidate shall be summoned, on the 31st of July, to defend his Thesis; and, finally, if the Senate think fit, he shall be admitted, on the first lawful day of August, to the Degree of Doctor.

Sect. XII.—The Senatus Academicus, on the day here appointed, shall assemble at Ten o'clock, a.m., for the purpose of conferring the Degree; and no Candidate, unless a sufficient reason be assigned, shall absent himself, on pain of being refused his Degree for that year.

Sect. XIII.—Candidates for Graduation shall be required to produce evidence of their having conformed to those Regulations which were in force at the time they commenced their Medical Studies in a University.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

President—Dr. James Begbie.

Clerk—Christopher Douglas, Esq., W.S., 22, Young-street.

REGULATIONS RELATING TO ADMISSION TO THE FELLOWSHIP.

Fellows.—No one can be elected a Fellow of the College till he has obtained the degree of Doctor of Medicine. His petition must be presented at a meeting of the College, after the fees shall have been lodged in the Treasurer's hands; and, if a Graduate of any University in Great Britain or Ireland, the motion for his admission may be determined by ballot at the first quarterly meeting of the College—a majority of three-fourths being necessary to carry it in the affirmative. Graduates of Foreign Universities must previously submit to an examination before the Examiners of the College, which shall consist, 1. Of a Dissertation in English, on some subject in the Practice of Physic selected by the Examiners, to be written by the candidate in an apartment of the College Hall, under the superintendence of the Examiners. 2. Of a *viva voce* examination in English, chiefly on Symptomatology, Pathology, and Therapeutics of Diseases; but in part, also, on Anatomy, Chemistry, Botany, and Physiology. 3. The Examiners may institute such examination as they may consider advisable for satisfying themselves that the candidate has received a competent education.

Non-resident Fellows.—The mode of election of a Non-resident is the same as that of a Resident Fellow. In this petition he engages, if he come to reside in Edinburgh, to fulfil the whole conditions which the College does or may require of Resident Fellows; but another ballot must take place before he is admitted to that grade by the College. The fees for a Resident Fellowship amount to 130*l.*, and for a Non-resident 80*l.*, both inclusive of the stamp duty to Government.

Licentiates.—Graduates of British Universities may be admitted Licentiates without any previous trial or examination; but the laws relating to the examination of candidates for the Fellowship having foreign degrees are equally applicable to

candidates for the licence having foreign degrees. It is no longer necessary to be a Licentiate in order to become a Fellow. The fee for a licence is 70*l.*, inclusive of the Government stamp.

N.B.—Personal attendance is not necessary in the case of candidates for the Non-resident Fellowship, unless they are Graduates of foreign Universities, when they must present themselves for examination.

THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

SCHOOLS OF MEDICINE.

1. Every candidate for a Surgical diploma must have followed his course of study in a University; or in an established School of Medicine, as defined below; or in a Provincial School specially recognized by the College of Surgeons of that division of the United Kingdom in which it is situate.

2. Under the title "established Schools of Medicine" are comprehended the Medical Schools of those cities of Great Britain and Ireland in which diplomas in Surgery are granted, and such foreign Schools as are similarly circumstanced in the countries in which they exist.

3. Every candidate for a Surgical Diploma must have passed at least one Winter Session in an established School of Medicine, or at the School of Aberdeen.

COURSE OF STUDY.

Professional Instruction.—The candidate must have been engaged in attending the following separate and distinct courses of lectures during a period of not less than twenty-seven months; in which must have been included three Winter Sessions of six months' duration each:—

Anatomy, two courses (a), six months each; Practical Anatomy, twelve months; Chemistry, one course, six months; Practical Chemistry, one course, three months (the number of pupils in each class being limited to 25); or Analytical Chemistry, one course, three months; Materia Medica and Pharmacy, one course, six months; Institutions of Medicine or Physiology (b), one course, six months; Practice of Medicine, one course, six months; Clinical Medicine, one course, six months, or two courses (a), three months each, during the period of attendance at the Hospital where they are delivered; Principles and Practice of Surgery, two courses, six months each; or Principles and Practice of Surgery and Military Surgery, each one course of six months (a); Clinical Surgery, one course of six months, or two courses (a) of three months each, during the period of his attendance at the Hospital where they are delivered; Midwifery and the Diseases of Women and Children, one course, three months; Medical Jurisprudence, one course, three months.

Besides these Lectures, the candidate must have attended a course of instruction in Practical Pharmacy, at the laboratory of a surgeon or apothecary; or of a chemist and druggist recognized by the College on special application; or of a public hospital or dispensary; and he must produce evidence that he has been engaged in compounding and dispensing medicines for the space of six months. Those who produce certificates of having been, for the space of at least two years, private pupils or apprentices to regularly-licensed medical practitioners, keeping laboratories for dispensing medicines, shall be held qualified in this branch of instruction.

The six months' course delivered in Edinburgh must consist of not fewer than 110 lectures, with the exception of Clinical Medicine, Clinical Surgery, and Military Surgery. The three months' courses must consist of not fewer than sixty lectures. Two London courses of three months each on any of the above subjects, will be taken as equivalent to one six months' course.

The candidate must also have attended, for twenty-one months, a public general hospital containing on an average eighty patients.

REGISTRATION AND CERTIFICATES.

All Edinburgh students who desire to possess the diploma of the College must enter their names, and the classes which they attend, whether under Professors in the University, or under other qualified teachers, in the Registration Book.

(a) The two Courses must not be simultaneous.

(b) In those Schools of England and Ireland in which two separate courses of lectures are delivered by different teachers, one on Anatomy, the other on Anatomy and Physiology, one of these courses will be received as the course of Anatomy, and the other as the course of Physiology required by the College.

At the close of each Session, students shall produce to the Registrar the certificates of attendance they may have received from their respective teachers, the terms of which shall be entered in the Registration Book.

The book shall be closed for the registration of the Winter classes on the 30th of November in each year; and of the Summer or intermediate classes, at the end of the second week from their commencement.

All students whose classes are thus registered shall be entitled to receive from the Conservator certificates of their courses of study, attested by his signature; but no class shall be included in such certificates, unless actual attendance thereon have been previously attested by the Professor or Lecturer.

Such certificates will be required from all candidates for Surgical diplomas, in regard to that part of their Medical education which they may have received at Edinburgh. Similar certificates will be received from any other schools in which registration-books are kept, in regard to such portions of the course of study as the certificates may embrace. Candidates educated at schools where no registration-books are kept, must produce certificates from their respective Professors or Lecturers, both of them having entered to their several classes at an early period of the course, and also of their having attended those classes with due regularity. And in the case of Practical Anatomy, the certificate must express that the candidate has, during the course of his attendance, been actually engaged in the dissection of the human body, under the personal superintendence of the Professor or teacher.

EXAMINATIONS.

The days of examination are the first and third Tuesdays of every month.

No candidate will be admitted to examination before the termination of his last year's course of study.

Applications for examination must be made to the Examiners of the students' course of study at least two days previously to the day of examination.

Every candidate, on applying to the Examiner, will be required,—1st. To produce satisfactory evidence of his having attained the age of twenty-one years; and, 2nd. To present a tabular statement exhibiting the full amount of his professional education, as well as a separate list of all the classes, hospitals, and dispensaries, attended during each session of his studies. If he have been an apprentice, he shall also insert the name of his master, the date of his indenture, and the length of time for which he was bound. This statement, accurately filled up, must be attested by his signature.

If the candidate have been an apprentice to a Fellow of the College, he must also produce his discharged indenture.

The fees payable to the funds of the College must be lodged, before the examination, in the hands of the Treasurer, who will certify this upon the Examiner's letter, after inspecting and being satisfied with the certificates. The fees will be returned to unsuccessful candidates, whose names will be concealed.

Unsuccessful candidates will be remitted to their studies for a period to be determined by the judgment of the examinators, but not in any case for less than three months.

The Examiner, if he judge it proper, may order a meeting for examination on any day, at the request of a candidate; but in that case the candidate must pay two guineas in addition to the customary fees; and this money will not be returned to him in the event of his being remitted.

The College having instituted an examination in Latin, and also an examination in Mechanical Philosophy, to take place on the second Saturday in December annually without expense to the students, those who desire to avail themselves of either or both of these examinations must give in their names, addresses, and places of birth, to the officer of the College, two full days prior to the day of the examinations. Students intending to take the diploma of the College are recommended to take these examinations at as early a period in the course of study as possible.

Candidates for the diploma of the College, who have taken a degree in Arts from a University of Great Britain or of Ireland, will be exempted from the examinations in Latin and in Mechanical Philosophy.

All Candidates who have not given proof of the competency of their knowledge of Latin by the methods prescribed in the last two regulations, will be required to translate into English

a portion of a Latin author at the commencement of their examination for the diploma of Licentiate; and if they cannot do so satisfactorily, the examination will not be proceeded with.

All candidates who have not given proof of the competency of their knowledge of Mechanical Philosophy by the methods prescribed above, will be liable to be examined on this department as part of their examination for the diploma of Licentiate.

In order to test more effectually the practical knowledge of candidates, specimens of Anatomy and of Materia Medica will be employed during the examinations; and every candidate will be required to write out one or more formulæ of prescription.

In recording the results of the examinations for the diploma of Licentiate, the Examinators have been instructed to attach special marks of their approbation, in future, to the names of those Licentiates whose acquirements shall appear to them to be of a superior description.

FEES PAYABLE BY CANDIDATES.

1. *For a Diploma*, ordinary candidates pay the sum of 10*l.*

2. Apprentices of those who were Fellows of the College prior to the Charter of 1851, pay 5*l.* for a diploma.

3. *For the Certificate of Qualification to act as Assistant-Surgeon in the Navy*, candidates not having paid for any previous qualification pay 4*l.* 19s. 6d.

[Assistant-Surgeons in the Navy, having previously obtained certificates from the College, will receive a diploma on making up the sum to 10*l.*]

4. *For the Certificate of Qualification to act as full Surgeon in the Navy*, Assistant-Surgeons who have already obtained certificates from the College, pay 3*l.* 18s. 6d.; and those who have previously obtained the diploma of the College pay 2*l.* 17s. 6d.

[Surgeons in the Navy will obtain a diploma on making up the sum to 10*l.*]

The sums stated above include all fees of every kind, and the officer is prohibited from receiving any.

SURGEONS' HALL, EDINBURGH.

The courses of lectures here qualify for examination at the Royal College of Surgeons of Edinburgh, England, and Ireland; the Apothecaries' Hall, London; the Faculty of Physicians and Surgeons of Glasgow; the Boards of the Army, Navy, and East India Company; and also, so far as required, for the Universities of London, Oxford, Cambridge, St. Andrew's, Aberdeen, and the Queen's University, Ireland.

In accordance with the recent statutes of the University of Edinburgh, one-third of the entire Medical classes required for graduation may be attended under any of the above teachers; and one of the four years of study required for the University Degree may be constituted by attendance, in one year, on two of the above six months' courses, or on one of these and two three months' courses. The regulations require that, in this case, the fee for any of the above classes shall be the same as that for the corresponding class in the University. Those who hold a Scotch or Irish diploma, or degree in Surgery, are admitted to the same rights under the Poor-Law Amendment Act as members of the Royal College of Surgeons of London. The registrations at Surgeons' Hall close on November 30.

UNIVERSITY OF GLASGOW.

FACULTY OF MEDICINE.

The Winter Session commences on the first Tuesday in November, and terminates on the last Wednesday in April. The Summer Session commences on the first Tuesday in May, and terminates on the last Friday in July. Courses of Lectures on Botany, General and Surgical Anatomy, and Practical and Analytical Chemistry, are delivered by the respective Professors.

REGULATIONS FOR DEGREES IN MEDICINE AND SURGERY.

I.—*Degrees in Medicine.*—Every candidate for a Medical degree, must lodge, with the Clerk of Senate, a certificate of moral character, signed by two respectable persons, with evidence that he has attained the age of 21 years. He must produce evidence of having attended, for four years or four Winter Sessions of Six Months each, an University in which Medical degrees are conferred and Medicine is regularly taught, or Medical Lectures delivered in London or Dublin. He must spend one at least of the four years at the University of Glasgow: and, in each year, he must have attended at least two Courses of Medical Lectures of Six Months' duration. But if he shall spend only one year or Session at the University of Glasgow, then he must attend not less than three Courses of Lectures delivered there, two of them, at least, being of Six Months' duration. If of less extent, two Courses shall be held equivalent to one of Six Months. He must produce certificates of attendance on all the following Courses of Instruction, each being of Six Months' duration, with the exceptions mentioned below: Anatomy, Chemistry, Institutes of Medicine, Botany, (three months), Materia Medica and Pharmacy, Surgery, Practice of Medicine, Midwifery, Forensic Medicine, (three months), Anatomical Dissections, Practical Chemistry, (three months), General Hospital, (two years, of not less than nine months each, or eighteen months). The said Hospital must contain not fewer than eighty beds; clinical instruction in Medicine and Surgery must be given in it; and the Student must spend, at least, one half of the period of his attendance in the Physicians' Wards. Hospital attendance, Anatomical Dissections, and Practical Chemistry, shall not be considered as equivalent to the Courses of Lectures referred to in the last clause of Regulation II. Courses of Botany delivered during the Summer alone will be recognized, excepting in the case of those candidates who shall be only one Winter in Glasgow, and shall not have previously attended this Course. Each candidate for a Medical Degree must lodge, with the Clerk of Senate, the above certificates, and a Schedule of his course of study properly filled up; together with an Essay composed by himself in Latin or English, on some Medical subject of his own selection, on or before the 1st of March or the 10th of June, for the respective following terms of Graduation. No Student shall be entered in any Medical Class later than the 1st of December (excepting those which do not meet till a later period), without the special permission of the Senate. And every candidate for Graduation, shall be strictly required to have his name enrolled in the University Album, on or before that day, and to produce an express certificate of his regular attendance, by the Professor in each Class. The candidates shall undergo full examination on all the subjects included in the Curriculum. The examination shall be conducted partly in writing. Previous to the professional examination, the candidate shall give evidence that he possesses a competent knowledge of the Latin language.

The professional examination shall be divided into two parts, which shall take place at different meetings; the first comprehending an examination on Anatomy, Chemistry, Institutes of Medicine, and Botany; the second, on the Principles and Practice of Medicine and Surgery, Materia Medica and Pharmacy, Midwifery and Forensic Medicine. The candidate may have it in his option to undergo the first professional examination at the end of his second Winter Session, or at any of the following examination terms, provided he shall then have attended the necessary Courses of Lectures.

II.—*Degrees in Surgery.*—The Regulations respecting certificates of age and moral character are the same as those under the head of degrees in Medicine. Candidates for the degree of Master of Surgery, shall produce evidence that they have attended Medical and Surgical Lectures, in one or other of the Universities or Schools already specified, for four years or Winter Sessions in each of which they must have attended two or more of the following Courses of Instruction; the extent of each Course, with the exceptions mentioned below, being Six Months, or the equivalent two Courses of a shorter duration. The candidate must have attended not less than three Courses of Medical Lectures in the University of Glasgow: Anatomy, Chemistry, Institutes of Medicine, Botany, (three months), Materia Medica and Pharmacy, Surgery, Practice of Medicine, Midwifery, Forensic Medicine, (three months), Anatomical Dissections, Practical Chemistry, (three months), a General Hospital, (eighteen months). The said Hospital must contain not fewer than eighty beds; clinical instruction in Medicine and Surgery must be given in it; and the student must attend one-half of the prescribed period in the Surgical, and the other half in the Medical Wards.

N.B. The above Regulations apply to those who shall have commenced their studies in November, 1853. Candidates for degrees, who attended the Medical Classes in the University of Glasgow previously, are admitted to Examination, accord-

ing to the Regulations which existed at the time when they began to study Medicine.

The days appointed for conferring degrees in Medicine and Surgery are the last Wednesday of April, and the first Wednesday of August. The University Fee for the Degree of M.D. is 15*l.* 3s.; the Government duty on stamp for ditto, is 10*l.*; the Fee for the Degree of Chirurgiæ Magister, is 10*l.* 10s.

Arrangement of the Curriculum.—Intending Graduates in Medicine and Surgery are requested particularly to observe,

I.—That the whole course of study, of four years' duration, required for graduation either in Medicine or in Surgery, must be attended in one or more of the Medical Schools described in Regulation II.

II.—That those who intend to prosecute the whole of their studies in Glasgow, must study during the whole four years in the University, attending during each year at least Two Courses of Medical Lectures of six months' duration, delivered in the University.

III.—That those who receive part of their Medical education in any of the authorized Medical Schools other than the University of Glasgow, must spend at least one Session of six months' duration at the University of Glasgow, attending during that Session not less than Three Courses of Medical Lectures delivered there, of which two at least must be of six months' duration.

IV.—In respect to the order of attendance on the Classes prescribed by Regulation III., it is earnestly recommended, although not absolutely required:—

1st. That Anatomy, Chemistry, Practical Anatomy, Practical Chemistry, and Botany, be attended within the first two years, Botany, if possible, in the summer of the first year.

2nd. That Institutes of Medicine, Surgery, and Materia Medica be attended within the second and third years.

3rd. That Practice of Medicine, Midwifery, and Forensic Medicine be attended within the third and fourth years.

4th. That Hospital Practice with Clinical Instruction be attended during the second, third, and fourth years.

5th. That attendance on Anatomy and Chemistry should always precede that on Institutes of Medicine, and that attendance on Anatomy, Chemistry, and Botany should always precede that on Materia Medica, and the other Classes which follow.

V.—That all Medical Students are further recommended to attend the Lectures on Natural Philosophy, Natural History, Diseases of the Eye, the Lying-in Hospital, and the Infirmary for Diseases of the Eye, and to embrace all opportunities within their reach of studying General Pathology, Comparative Anatomy, and Mental Diseases.

UNIVERSITY AND KING'S COLLEGE, ABERDEEN,

Chancellor—The Right Honourable the Earl of Aberdeen, LL.D.

Lord Rector.—The Right Honourable the Earl of Ellesmere, D.C.L.

Principal.—P. C. Campbell, D.D.

Sub-Principal.—David Thomson, M.A.

Secretary.—Frederick Fuller, M.A.

Curator of Museum.—Aw. Fyfe, M.D.

Librarian.—Robert Bower, M.D.

Medical School.—The Winter Session commences on the first Monday of November, and terminates on the third Friday of April. Introductory Lecture on the first Monday of November, at 2 o'clock, p.m.

[*For Classes and Lectures, see Table, p.* 323.]

Students are required to matriculate within the first month of the Winter Session, and within the first fortnight of the Summer Session, and no certificate of attendance will be given without such matriculation. The matriculation fee for all the classes is one sum of 5s. for the Winter, and one of 2s. 6d. for the Summer Session.

Chemistry will be taught, as formerly, in King's College; and the other classes in the Medical School, St. Paul's-street.

Royal Infirmary.—The Hospital is open daily at 10 o'clock, a.m., and contains upwards of 300 beds. Separate courses on Clinical Medicine and Clinical Surgery are delivered in the Hospital twice a-week.

Physicians.—Dr. Dyce, Dr. Kilgour, Dr. W. Williamson, Dr. Nicol.

Surgeons.—Wm. Keith, Esq., Wm. Pirrie, Esq., David Kerr, Esq., A. J. Lizars, Esq,

Ophthalmic Surgeon.—John Cadenhead, Esq.

Lecturers on Clinical Medicine and Surgery.—Dr. Kilgour, and William Keith, Esq.

Fee for the Medical and Surgical Practice of the Hospital, 1st year, 3*l.* 10s.; 2nd year, making perpetual, 3*l.* 0s.; or one sum of 6*l.* Clinical Medicine.—For the first course, 2*l.* 2s.; subsequent courses, 1*l.* 1s. each. Perpetual, 4*l.* 4s. Clinical Surgery.—For the first course, 2*l.* 2s.; subsequent courses, 1*l.* 1s. each. Perpetual, 6*l.* 6s.

Dispensary.—The Aberdeen General Dispensary, Vaccine, and Lying-in Institution, is open to the Student on application to the Medical Officers. There are annually about 5000 patients, either prescribed for at the Institution, or visited at their own houses.

Lunatic Asylum.—The Asylum contains about 240 patients. A limited number of Students are admitted to see the practice. Fee, for a course of three months, 2*l.* 2s. Consulting Physician, Dr. Macrobin. Resident Physician and Superintendent, Dr. Robert Jamieson.

REGULATIONS TO BE OBSERVED IN GRANTING THE DEGREE OF M.B.

Students shall be entitled to the degree of M.B., who being of the age of twenty-one years, and having completed the curriculum appointed for the degree of M.D. (one *Annus Medicus*, at least, having been passed at King's College), shall, on examination, be found duly qualified; and the fee for such degree shall be Five Guineas. Those who have obtained the degree shall be entitled to make application, within twelve years, for the degree of M.D., which degree shall be conferred by the Senatus, without further examination, on the candidates producing satisfactory evidence that they have creditably pursued the Medical Profession in the interval; and for the degree of M.D., thus conferred, the additional fee of 21*l.* 0s. 6d. shall be charged.

REGULATIONS TO BE OBSERVED IN GRANTING THE DEGREE OF M.D.

Candidates for the degree of M.D. must be of the age of twenty-one years complete, previous to examination. Candidates must produce satisfactory certificates of moral character, and of having studied the classics and mathematics at a university, or at an academy of acknowledged reputation. All candidates, with the exceptions mentioned below, must have been engaged in the study of Medicine for at least four years—one of which must be passed at King's College, Aberdeen; and must produce evidence of having attended in some recognized School of Medicine the following course of lectures:—Six months' courses.—Anatomy, 2 courses; chemistry, 1 course; materia medica, 1 course; surgery, 1 course; institutes of medicine and physiology, 1 course; practice of medicine, 1 course; midwifery, 1 course. Three months' courses.—Dissections, 2 courses; practical chemistry, 1 course; medical jurisprudence, 1 course; clinical surgery, 1 course; botany, 1 course; clinical medicine, 2 courses.

Attendance on at least two of the above courses during each session is requisite to constitute an *Annus Medicus*. Certificates of attendance on a six months' course of chemistry, previous to the commencement of medical study, will be received. For those who have a diploma of A.M., attendance on anatomy during the fourth Session of the Curriculum of Arts, and on a full course of chemistry, will be considered as one Medical Session. In addition to the above, every candidate must have attended for two years the wards of an Hospital containing 100 beds; and, during three months, a shop or dispensary for the compounding of medicines. Previous to commencing the Medical examination, candidates not having the degree of A.M., will be required to show that they have a competent knowledge of the Latin language, by translating a passage from Celsus. The preceding regulations will be strictly enforced in the case of all Students who commenced their Medical studies at a period subsequent to October 1, 1840. But Practitioners who possess a licence or diploma from any of the Royal Colleges of Physicians or Surgeons, or from the Apothecaries' Company, and who have been engaged for at least five years in the practice of Medicine, will be admitted to examination on producing their licence or diploma, along with satisfactory evidence of good moral character, and of having studied the classics at a University, or at an academy of acknowledged reputation.

Practitioners who commenced their Medical studies before October, 1840, and who have not been in practice for five years, will be admitted to examination under the conditions prescribed in Section III., with the exception of a year's residence at King's College. Fees, 26*l.* 5s. 6d.

MARISCHAL COLLEGE AND UNIVERSITY OF ABERDEEN.

Chancellor.—His Grace the Duke of Richmond and Lennox.
Rector.—Austen H. Layard, Esq., M.P.
Dean of Faculty.—Sir John Forbes, M.D.
Principal.—The very Rev. Daniel Dewar, D.D. and LL.D.
Winter Session of 1856-57, of six months' duration, commences on Monday, the 3rd of November.

REGULATIONS FOR GRANTING MEDICAL DEGREES.

Four years of attendance on Medical classes, of which two years may be passed at a recognized Medical school; but two must be passed in a University, and one of them, at least, in this University. The attendance, in each year, must embrace not fewer then two Medical classes of six months each; or one of six months, with two of three months each. But it will be held equivalent to one of these four years of attendance, first, in a Master of Arts, to have attended one Medical class while passing through the curriculum of Arts; or secondly, in any other candidate, to have attended a Medical class in each of two years, along with classes in the curriculum of Arts. The attendance must include the following classes, each for a course of six months—Anatomy, Practical Anatomy, Chemistry, Materia Medica, Institutes of Medicine, Practice of Medicine, Surgery, Midwifery; and the following classes, each for a course of three months—Botany, Practical Chemistry, Medical Jurisprudence. In regard to Practical Anatomy, every candidate must produce a certificate that he has dissected all the parts of the human body. Eighteen months of attendance on the Medical and Surgical practice of an Hospital containing not fewer than eighty beds, along with attendance for six months on Lectures on Clinical Medicine, and for three months on Lectures on Clinical Surgery. Six months of compounding and dispensing Medicines in the laboratory of an Hospital, or of a public Dispensary, or of a licensed General Practitioner, or of a regular Dispensing Druggist.

EXAMINATIONS.

There shall be two examination terms in each year, commencing on the second Tuesday of April, and the third Tuesday of October. Every candidate who is not a Master of Arts, nor possessed of a diploma or a licence in Medicine or in Surgery from any authority established by law within the United Kingdom, shall undergo a preliminary examination on the Latin language (the book to be used being Celsus *de Medicinâ*); on the etymology of such terms in the Medical Sciences as are derived from the Latin and the Greek; and on the Elements of Mental Science (the book to be used being Abererombie *on the Intellectual Powers*). The preliminary examination may be undergone, at the option of the candidate, at any examination term after the expiry of the first session of his attendance on Medical classes. Every candidate shall undergo two separate Professional examinations; the first on the theoretical, and the second on the practical branches of Medical Science, as under, viz.:—First Examination—Anatomy, Physiology, Botany, Chemistry, Materia Medica. Second Examination—Medical Jurisprudence, Midwifery, Surgery, Practice of Medicine. Physiology will comprehend the Doctrines of Physics, illustrative of animal structure and function. Any candidate who so desires shall be admitted to the two Professional examinations at different terms, viz.:—to the first examination, at the end of his third year of Medical classes; and, provided he be twenty-one years of age, to the second examination at the end of his fourth year. But no longer interval than two years will be allowed to intervene between the two examinations, without a full renewal of the previous one.

Fees.—For the Degree of Bachelor of Medicine, £16 5s.; for the Degree of Doctor of Medicine, £26 5s.

The various courses delivered at this University qualify for examination here, and at the Universities of London, Dublin, Oxford, Cambridge, Glasgow, and St. Andrew's; the Royal College of Surgeons, of England, Edinburgh, and Ireland; the Apothecaries' Hall, London; and the Medical Boards of the Army and Navy, and Hon. East India Company. Graduates who have attended the several Medical Classes in this University, will be charged no graduation fees for the degree of M.B.

Extracts from the Regulations for Granting Medical Degrees.—Gentlemen who have obtained a diploma or a licence in Medicine or in Surgery, from any authority established by law, within the United Kingdom, and who have subsequently attended Medical Classes in this University during one Winter Session, shall be admitted to examination for the Degree of Bachelor or Doctor of Medicine. Practitioners may be admitted, without residence, to examination for the Degree of M.B., who have held a diploma or a licence in Medicine or in Surgery, for at least five years, and who produce satisfactory evidence of good moral character, and of having been engaged in practice during that period. Practitioners may be admitted, without residence, to examination for the Degree of M.D., who have held a diploma or a licence in Medicine or in Surgery, for at least ten years, and who produce satisfactory evidence of good moral character, and of having been engaged in practice during that period. Practitioners who have held, for at least three years, the Degree of M.B., obtained without residence, may receive the Degree of M.D., upon producing satisfactory evidence of good moral character, and of having been engaged in practice during their possession of the inferior degree. Practitioners who may be exempted from residence, shall undergo two separate Professional examinations, which may be taken at the same or at two different terms:—the *first* examination to include Anatomy, Physiology, Pathology, and Therapeutics; the *second*, Practice of Medicine, Surgery, Midwifery, and Medical Jurisprudence.

The Lunatic Asylum, under the care of Dr. Macrobin, Consulting Physician, and Dr. Robert Jamieson, Resident Physician, contains 280 Patients. A limited number of Pupils is permitted to witness the practice pursued in this asylum, in the treatment of mental disease. A course of clinical instruction in the treatment of insanity is given during the Summer Session by Dr. Jamieson, the Medical Superintendent. Fee, £2 2s.

Besides the College Library, there is in the Hall of the Medico-Chirurgical Society of Aberdeen, a Medical Library, containing 4000 volumes, with a Reading Room attached. Admission to the Society by ballot. Terms for Students, £1 1s. yearly.

FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.

The regulation-examination days are on the first and third Tuesdays of every month.

REGULATIONS REGARDING THE GRANTING OF THE DIPLOMA IN SURGERY.

Preliminary Instruction.—Every candidate for the diploma of this faculty must produce evidence of his having attained the age of 21 years. He must, either previously to or during his Medical education, have received regular instruction in Latin and Mathematics; and must have subsequently attended a course of Natural Philosophy of at least three months' duration.

Professional Instruction.—The candidate must have been engaged in attending the following separate and distinct courses of lectures during a period of not less than twenty-seven months, in which must have been included three winter sessions of six months' duration each: Anatomy, Practical Anatomy, and Surgery, of each two courses of six months (or Surgery and Military Surgery one course of, six months each); Chemistry, one course of six months; Practical Chemistry, one course of three months; Institutes of Medicine, Practice of Medicine, Materia Medica, Midwifery, and Diseases of Women and Children, one course of six months each; Medical Jurisprudence and Botany, one course of three months each; General Hospital, with at least eighty beds, twenty-one months; Practical Pharmacy, six months.

The Faculty recommend the following, viz.: Lectures on the Eye, and Hospital for Eye Diseases (a three months' course of lectures on the eye, with six months' attendance on an eye hospital, containing at least 12 beds for operation-cases, will be considered equivalent to three months of a general hospital), Lying-in Hospital, Hospital for Syphilitic Diseases, Pathological Anatomy, Natural History, and Comparative Anatomy, Greek, French, German, and Italian.

Each candidate shall be examined, partly orally, and partly

by written question and answer, without the use of books. He shall translate Latin, write prescriptions, and be examined in preparations. The committee of Examiners being satisfied with these trials, the candidate shall be entitled to his diploma, on taking and subscribing to the declaration authorized by law, in place of extra-judicial oaths.

The Faculty Registrar is open during the months of November, for the signatures of those Students who wish to obtain the diploma, and the classes attended by each during the current session.

An examination in Latin will be held on the second and following Saturdays in December.

The regulation examination days are the first and third Tuesdays in each month.

The fee for the diploma is 10*l*.

UNIVERSITY OF ST. ANDREWS.

REGULATIONS RESPECTING THE EDUCATION OF CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE.

I. Every candidate for a Diploma in Medicine, upon presenting himself for examination, shall produce satisfactory evidence:—1. Of unexceptionable moral character. 2. Of having had a liberal and classical education. 3. Of having completed the twenty-first year of his age.

II. Fellows, members, and licentiates of the Royal Colleges of Surgeons of England, Edinburgh, and Dublin; of the Royal College of Physicians of London; of the Faculty of Physicians and Surgeons of Glasgow; and of the London Apothecaries' Company, are eligible as candidates for the degree of Doctor of Medicine, on producing their diploma or licence.

III. Candidates not holding any of the qualifications enumerated in the above clause, must produce satisfactory proof that they have regularly attended lectures delivered by Professors in some University, or by Fellows of the Royal Colleges of Physicians or Surgeons of London, Edinburgh, or Dublin, for four complete winter sessions, or for three winter and three summer sessions, on the following branches:—1. Anatomy, two courses of six months each. 2. Practical Anatomy or Dissections, twelve months. 3. Physiology, one course of six months. 4. Chemistry, one ditto ditto. 5. Practical Chemistry, one ditto of three months. 6. Materia Medica and Pharmacy, one ditto ditto. 7. Midwifery and Diseases of Women and Children, one ditto ditto. 8. Surgery, one ditto of six months. 9. Clinical Surgery, one ditto ditto. 10. Practice of Medicine, one ditto ditto. 11. Clinical Medicine, one ditto ditto. And that they have diligently attended for at least two entire years the Medical Practice in some Public Hospital in Great Britain or Ireland, containing not less than 100 beds, and having a regular establishment of Physicians, as well as Surgeons.

Examiners for Degrees in Medicine.—George E. Day, M.D., F.R.S., Professor of Anatomy and Medicine; Arthur Connell, F.R.S.E., Professor of Chemistry; William Pyper, LL.D., Professor of Latin. *Assistant-Examiner.*—Andrew Anderson, M.D., Professor of Medicine in the Andersonian University, Glasgow.

The examination takes place twice in the year, commencing on the first Wednesday in May, and the third Wednesday in October. The graduation fee is twenty-five guineas. Candidates can only be admitted to examination at other periods by a special grace of the Senatus Academicus. The graduation fee in this case is fifty guineas. The examination extends over two days, and is conducted partly in writing and partly orally. On the first day, candidates are required to give a written translation of a passage from a Latin Medical Author, and are examined in the elements of Chemistry, in Materia Medica, and in Anatomy and Physiology. On the second day they are examined in Pathology and the Practice of Medicine, in the Principles of Surgery, and in Midwifery.

FACULTY OF MEDICINE IN IRELAND.

UNIVERSITIES, COLLEGES, COURSES OF STUDY, DEGREES AND LICENCES TO PRACTISE.

The following bodies grant one or more degrees or licences to practise Medicine or Surgery, and provide courses of instruction in the Medical sciences:—The University of Dublin with the Medical School of Trinity College. This University grants the degrees of M.B. or Bachelor of Medicine, and M.D. or Doctor of Medicine, and also a Surgical diploma. The Queen's University in Ireland, with its Provincial Colleges at Cork, Belfast, and Galway; this University confers the degree of M.D. The King and Queen's College of Physicians in Ireland, granting a licence and Fellowship. This institution, in connexion with the Medical Faculty of the University of Dublin, constitutes the School of Physic in Ireland. The Royal College of Surgeons in Ireland, which grants Letters Testimonial qualifying to practise Surgery, as a Licentiate, and also confers a Fellowship. The Rotunda Lying-In Hospital, which grants a diploma in Midwifery. The Governor and Company of the Apothecaries' Hall of Ireland.

The Medical Session in Ireland commences about the first week in November.

UNIVERSITY OF DUBLIN.

Medical School of Trinity College.—The Medical degrees in this University are granted on Shrove Tuesday and the first Tuesday in July. The degree of M.B. or Bachelor of Medicine, qualifying to practise and conferring the courtesy title of "doctor," may be obtained by all candidates who have graduated in Arts, and who have completed the requisite medical courses, and passed the Board of Examiners, consisting of the Professors of the School of Trinity College, and certain of the Professors and officers of the King and Queen's College of Physicians in Ireland. The Medical courses required of candidates for the degree of M.B. are Anatomy and Physiology, Practice of Medicine, Surgery, Chemistry, Botany, Materia Medica, and Pharmacy, institutes of Medicine, Midwifery, Medical Jurisprudence, Practical Anatomy and Practical Chemistry, Clinical Lectures at Sir P. Dun's Hospital during one session of six months, and three summer months, and also attendance for one session on the practice of a general hospital. At least one, and not more than three, of the above courses of lectures must be attended in each of four sessions; and three of the courses, at the option of the candidate, may be attended in the University of Edinburgh. The fees for each course are 3*l*. 3s.; but those graduating in Arts in the University are allowed to attend and receive certificates for one of each of the required Medical courses gratuitously.

The graduation fees are, for the degree of M.B., 11*l*. 17s. 6d., exclusive of stamp duty; and for the degree of M.D., which may be taken without further examination in three years after the M.B., 22*l*. exclusive of stamp duty.

The Diploma in Surgery may be obtained by such students as are matriculated in medicine, and have completed at least one year in Arts, on the following conditions:—

1. To complete one year in Arts, it shall be necessary to have answered at least one examination, subsequent to the Junior Freshman year; or to have completed the Junior Freshman year only, by passing the Michaelmas examination of that year, and keeping one previous term, either by lectures or by examination.

2. Students who have not passed an examination in the Senior Freshman year will be required to attend one course of lectures in Logic. Students who have not passed the Junior Sophister year of the Undergraduate course will be required to attend one course of Lectures on Mechanics with the Assistant to the Professor of Natural Philosophy.

3. Students so qualified will be admitted to examination for the diploma in surgery, as soon as they shall have completed the prescribed curriculum.

4. This curriculum shall extend over a period of four years, and shall comprise attendance upon the following courses of Lectures in the School of Physic in Ireland:—Anatomy and Physiology, 3 courses; Demonstrations and Dissections, 3 courses; Theory and Practice of Surgery, 3 courses; Practice of Medicine, 1 course; Chemistry, 1 course; Materia Medica, 1 course; Midwifery, 1 course; Practical Chemistry, Botany, and Medical Jurisprudence, 1 course each, of three months' duration.

Four of the above-named courses, together with a course of demonstrations and dissections, may be attended in any school of Medicine recognized by the University.

Also attendance for three Sessions, each of nine months' duration, on the practice of any of the following Hospitals, together with attendance on the clinical lectures on Medicine and Surgery there delivered:—Richmond, Whitworth, and Hardwicke Hospitals:—Meath Hospital, Steeven's Hospital, Jervis-street Infirmary, City of Dublin Hospital, Mercer's Hospital, St. Vincent's Hospital.

Of the courses of lectures, which are of six months' dura-

tion, not more than three can be attended during any one Session.

5. Candidates for the diploma, who have complied with the foregoing regulations, must pass an examination before a Court of Examiners, consisting of the Regius Professor of Physic, the Professors of Anatomy, Surgery, Chemistry, Midwifery, and Botany.

The examination of each candidate will be divided into two parts, one of which shall be devoted to Anatomy and Physiology, Surgical Anatomy, the Theory and Practice of Surgery, and Operative Surgery; and the other to the Practice of Medicine, Midwifery, Chemistry, Materia Medica, and Toxicology.

6. Candidates for the diploma must submit their certificates and testimonials of qualification to the Regius Professor of Physic and to the Professor of Surgery, who shall sign the chart necessary to be laid before the Senior Lecturer and Registrar, previous to the issuing of the *Liceat ad Examinandum* to the Professors.

Gentlemen possessing the Surgical Diploma of this University have already received appointments in Her Majesty's Service.

THE QUEEN'S UNIVERSITY IN IRELAND,

granting the degree of M.D., is the centre or head of the Provincial Colleges of Cork, Belfast, and Galway, each of which possesses a Faculty of Medicine. Candidates must matriculate in arts, previous to which an examination in a prescribed course of study must be proved. The curriculum of Medical study extends over a period of at least four years, and is subdivided into two periods of at least two years each; the first period, comprises attendance on Chemistry, Botany and Zoology, Anatomy and Physiology, Practical Anatomy, Materia Medica, and Pharmacy. The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery and Diseases of Women and Children, Theory and Practice of Medicine, Medical Jurisprudence. Also, during the first period, Practical Chemistry in a recognized laboratory during three months, and the practice during six months of a Medico-Chirurgical Hospital, containing at least sixty beds, together with Clinical Lectures delivered therein. During the second period, three months' Practical Midwifery in a recognized Hospital, with not less than thirty beds; three months' Practical Pharmacy; and eighteen months' practice of a Medico-Chirurgical Hospital, containing at least sixty beds, and in which Clinical Instruction is delivered. Two examinations must be passed by candidates for the degree of M.D. One comprising the subjects of study of the first period; the other the subjects of study of the second period. At least one-third of the above courses must be attended in some one of the Queen's colleges; the remainder may be taken at the option of the candidate, in any school, College, or University recognized by the senate of the Queen's University. The examinations are conducted partly by written papers, partly by *vivâ voce* questions.

CATHOLIC UNIVERSITY, DUBLIN.—MEDICAL FACULTY.

SCHOOL OF ANATOMY, MEDICINE, AND SURGERY.

Cecilia-street, Dame-street.

The Winter Session for 56-57 will commence on the 1st of October, with Practical Anatomy.

The Lectures will commence on 3rd of November, and terminate on the 30th of April, 1857.

Anatomy and Physiology, Human and Comparative—Thomas Hayden, F.R.C.S.I., and Robert Cryan, L.R.C.S.I., and K., and Q.C.P.I.

Chemistry—William K. Sullivan, Dr. Ph.

Theory and Practice of Surgery—Andrew Ellis, F.R.C.S.I.

Practice of Medicine and Pathology—Robert D. Lyons, M.B., T.C.D., L.R.C.S.I., and M.R.I.A.

Materia Medica—Robert M'Dermott, A.B., M.B., T.C.D., and M.R.I.A.

Medical Jurisprudence—Stephen M. M'Swiney, M.D. L.K., and Q. Col. Phys., and M.R.C.S.E.

Natural Philosophy—Henry Hennessy, M.R.I.A.

Demonstrators of Anatomy—Henry Tyrrell, L.R.C.S.I., John O'Reilly, L.R.C.S.I., and Francis Quinlan, L.R.C.S.I.

This School being duly licensed according to the provisions of the "Anatomy Act," and conducted in conformity with the Bye-laws, Rules, and Regulations, of the various Medical Bodies in Great Britain and Ireland, authorised to grant Degrees, Diplomas, and Licences in Medicine, Surgery, and Pharmacy, the Certificates issued by its Professors for attendance on lectures are recognised as legal documents, entitling the possessor to an examination for any of the foregoing qualifications.

SCHOOL OF PHYSIC IN IRELAND.

Under this head are comprised the educational establishments, partly on the foundation of Trinity College, and partly on the foundation of the late Sir P. Dun, in connexion with the King and Queen's College of Physicians in Ireland.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

This College grants a licence and Fellowship. Candidates must produce a certificate of matriculation in the University of Dublin, unless they have been students of Arts in the Universities of Oxford, Cambridge, or Dublin; also proof of having been engaged for at least four years in the study of medicine, and of having attended not less than two of the required courses in each year. These courses are Anatomy and Physiology, Chemistry, Institutes of Medicine, Materia Medica and Pharmacy, Practice of Medicine, Midwifery and Diseases of Women and Children, Surgery, Botany, and Medical Jurisprudence; of the two last, courses of three months each; of the remainder, courses of six months each; besides which, six months' dissections with demonstrations, and three months' practical chemistry, are required. The lectures must have been attended with the Professors of the School of Physic, or others recognized by the College. Hospital attendance for two years and six months, and six months' practice of a Lying-in Hospital are also necessary.

Graduates in Medicine (not honorary) of one of the Universities of the United Kingdom, Licentiates of the Royal College of Physicians of London or Edinburgh, officers holding medical or surgical commissions in Her Majesty's service, Licentiates of a College of Surgeons, of four years' standing, those who hold the surgical diploma of Trinity College, Dublin, or Licentiates of a College of Surgeons in the United Kingdom, producing, in addition to their diploma, certificates of attendance on a course of lectures on the Institutes of Medicine and Botany, and on the Practice of a Lying-in Hospital for six months, are admissible to examination on producing evidence of their possessing any of the foregoing qualifications, in addition to the certificate of Matriculation in the University of Dublin. The examination is conducted on two different days; those who, in addition to the qualifications just enumerated, are also Graduates in Arts of the Universities of Dublin, Oxford, or Cambridge, are required to undergo the second day's examination only, Botany and Materia Medica being added in the case of members of a College of Surgeons.

By a recent regulation of this College, every person receiving its licence is obliged to make a solemn declaration to observe its laws and ordinances, and among other things he solemnly engages "not to practise any system or method (so-called) for the cure or alleviation of diseases of which the College has disapproved; nor to endeavour to obtain practice, or to attract public notice by advertising, or by any other unworthy means; I also engage that I will neither permit nor sanction the use of my name by any other party for such purposes, nor in connexion with any secret or other remedy; and in case of any doubt relative to the true meaning or application of this engagement, I promise to submit to the judgment of the College." By the Dublin College of Physicians this regulation has been carried out in the letter and in the spirit.

ROYAL COLLEGE OF SURGEONS, IRELAND.

PROFESSORS.

Anatomy and Physiology: Dr. Jacob.
Descriptive Anatomy: Dr. Power and Dr. Bevan.
Surgery: Mr. Porter and Mr. Hargrave.
Practice of Medicine: Dr. Benson.
Chemistry: Dr. Barker.
Materia Medica: Dr. Williams.
Midwifery: Dr. Beatty.
Medical Jurisprudence: Dr. Geoghegan.
Practical Chemistry: Dr. Barker.
Comparative Anatomy: Dr. Jacob.
Botany: Dr. Mitchell.
Medical Surgery: Mr. Tuffnell.
Logical Science: John Murray, A.M., LL.D.

Fellows of the College are Members of the Corporation, and are admitted by examination; letters testimonials are granted to Licentiates, and a diploma in Midwifery to Fellows and Licentiates educated and examined in that branch of Surgery.

Candidates for the Fellowship must be twenty-five years of age, and must give proof of liberal preliminary education and good conduct during professional education. They are required to produce certificates of Surgical studies for six years (three of which must be for exercises in Dublin), and also of practice as House-Surgeon or dresser in an hospital; as well as certificates of attendance on hospitals, lectures, and dissections, as required from Licentiates; with the addition of Botany, Comparative Anatomy, and Natural Philosophy. Fee, 26*l.* 5s.; if the candidate be a Licentiate, 10*l.* 10s.

Candidates for Letters Testimonial are required to produce certificates of preliminary classical education, of four years' professional study (three of them in metropolitan schools), also three years' attendance on hospital lectures and dissections. Fee, 21*l.*

Candidates for the Midwifery Diploma must be Fellows or Licentiates of the College, are required to produce certificates of attendance on midwifery lectures and practice, with proof of having attended thirty cases of parturition.

Candidates for the Fellowship and Letters Testimonial are publicly examined on two separate days, in Anatomy, Physiology, Surgery, Practice of Medicine, and Pharmacy. The examiners are elected by a sworn jury of the Council appointed by lot, teachers being ineligible. Fellows and Licentiates of the College are qualified to practise as Surgeons in any part of the British dominions, and to be appointed Medical officers to the army and navy, public hospitals, infirmaries, dispensaries, and workhouses.

THE APOTHECARIES HALL OF IRELAND.

Every candidate must undergo two separate examinations, one for the certificate of Apprentice, the other for the licence to practise. Every candidate for the certificate of Apprentice will be examined in the following books:—In Latin—The Catiline War of Sallust, and the first three books of Æneid of Virgil: in Greek—the Gospel of St. John, and the first twenty Dialogues of Lucian, or the first two Books of Homer's Iliad; in French—Telemachus, or the History of Charles XII.: in Science—the first two Books of Euclid, and Algebra, to the end of simple Equations; also in Arithmetic and in English compositions. Every candidate for the licence to practise as an Apothecary must lay before the Court the following documents:—1. The Certificate of Apprentice. 2. The Indenture of Apprenticeship of five years, enrolled according to the Act of Parliament, and bearing the certificate of the Licentiate Apothecary to whom he has been indented ,of a good moral character, and of having fulfilled the period of his Apprenticeship. 3. Certificates duly signed that he has diligently attended at least one course of Lectures on each of the following subjects delivered at some School of Medicine recognized by the Court:—(The order of study here laid down is recommended for the guidance of Students,) Chemistry, Anatomy, and Physiology (six months), Practical Chemistry,(a) Botany and Natural History (three months), Materia Medica,(b) Demonstrations and Dissections, Theory and Practice of Physic, Surgery, Midwifery, and the Diseases of Women and Children (six months), Medical Jurisprudence (three months).

Attendance for the entire period of twelve months, on the Medical and Surgical practice in an Hospital or Hospitals recognized by the Court.

The examination for the licence to practise as an Apothecary will be as follows:—In Chemistry and General Physics; in Pharmacy, Theoretical and Practical; in Materia Medica and Therapeutics; in Natural History and Medical Botany; in Anatomy and Physiology; in the Theory and Practice of Medicine; in Midwifery; in Medical Jurisprudence.

Gentlemen who are Graduates in Medicine of any of the British or Irish Universities, or who possess letters testimonial from any of the Royal Colleges of Surgeons in Great Britain or Ireland, will be admitted to examination for the licence of the Hall, on producing proofs of three years' legal apprenticeship to a qualified Apothecary, practising with open shop in Ireland, and of a professional education equal to the curriculum prescribed by the Council. Licentiates of the London Hall are also eligible. The examination for the licence to act as Assistant to an Apothecary in compounding and dispensing medicine will be confined to Chemistry and Theoretical and Practical Pharmacy. The candidate for the Assistant's licence may present himself for examination at the termination of three years' apprenticeship. The Court of Examiners sits every Friday, at two o'clock, and proceeds with the examination of candidates in the order in which their names appear on the list. Candidates are obliged to lodge their testimonials a clear week before the day of examination. A rejected candidate cannot be re-admitted to examination until the expiration of six months. An examination of Apothecaries' apprentices takes place at the Hall on the first week in May, annually, upon some subject in Pharmaceutic or Pathological Analysis, which is publicly announced by the Court at the commencement of the previous winter session, and a prize of five guineas awarded to the successful competitor.

Rotunda Lying-in Hospital, Dublin.—This Institution, a monument of the philanthropy of the late Dr. Moore, contains nearly 150 beds. Upwards of 2000 women are annually delivered. There is a museum and lecture-room, and clinical courses are delivered in winter and summer. There is accommodation for 60 intern pupils: fees for interns, 20 guineas; for externs, 10 guineas.

Coombe Lying-in Hospital and Anglesea Lying-in Hospital.—Instruction in Midwifery is given in both these Institutions.

MEDICAL SCHOOLS OF DUBLIN.

There are now in the City of Dublin three private schools, in which a complete system of Medical education is conducted. There are the Carmichael, the Original School of Medicine, Peter-street, and the Dublin School of Medicine, Peter-street. The fees for each course in these schools are £2 2s.; and the lectures delivered therein are recognized by the various licensing bodies.

Dublin Hospitals.—There are seven General Clinical Hospitals in Dublin, varying in amount of beds from 100 to between 200 and 300. These are—

Steevens's Hospital contains about 200 beds, of which 30 are devoted to venereal cases. Fees—Interns, winter, six months, 21*l.*; summer, six months, 15*l.* Externs, winter session, 8*l.* 8s.; summer, 5*l.* 5s. The scale of fees is about the same in all the chief Dublin Hospitals, 8*l.* 8s. for the session of nine months.

The Richmond Hospitals comprise over 200 beds. This Institution possesses great advantages; it is in the immediate neighbourhood of the Carmichael School; it affords accommodation for several intern Medical pupils, as well Medical as Surgical.

Meath Hospital.—This Institution receives Surgical, Medical, and fever patients.

St. Vincent's Hospital.—This is under the direction of the Sisters of Charity. It receives Medical and Surgical cases, and has a large Dispensary.

Baggot-street Hospital.—The instruction in this Institution is chiefly conducted by the Professors of the Royal College of Surgeons in Ireland.

Jervis-street Hospital.—This Institution, one of the oldest of the kind in Dublin, has recently been placed under the charge of the Sisters of Mercy. Clinical Lectures are regularly delivered, also Special Courses on Venereal Diseases, Cutaneous Diseases, etc.

Mercer's Hospital.—This is also a Clinical Hospital. Clinical Lectures are delivered, and the certificates of attendance recognized by all the licensing bodies.

Sir P. Dun's Hospital is devoted to Medical cases in the Clinique of the School of Physic, and is chiefly attended by the Professors of that school.

St. Mark's Ophthalmic Hospital.—This Institution contains 21 beds, and has a very extensive Ophthalmic Dispensary. A Clinique, with systematic instruction and operation two days in each week. This Institution possesses accommodation for a resident pupil.

(a) The Practical Chemistry must be attended in a Laboratory, and no certificate will be received by the Court that does not testify that the candidate has prepared the several Pharmacopœial Preparations which are usually made in the Laboratory.

(b) The Materia Medica if attended in summer must consist of two courses of three months' duration each.

CLASSES AND LECTURERS AT THE LONDON, PROVINCIAL, AND SCOTTISH MEDICAL SCHOOLS.

	Anatomical Demonstrations.	Anatomy, Descriptive and Surgical.	Structural & General Anatomy & Physiology.	Chemistry.	Materia Medica and Therapeutics.	Principles & Practice of Medicine.	Principles & Practice of Surgery.	Midwifery & Diseases of Women & Children.	Botany.	Medical Jurisprudence.	Comparative Anatomy.	Experimental and Descriptive Natural Philosophy.	Practical Pathology	Microscopical Anatomy.	Dentistry.	Ophthalmic Surgery.	Practical Chemistry.
St. Bartholomew's ...	Mr Holden, Mr Savory	Mr Skey	Mr Paget	DrStenhouse	Dr Farre	Dr Burrows Dr Baly	MrLawrence	Dr West	Dr Kirkes	Dr Black	Mr M'Whinnie	Dr Martin	Mr Callender & House Surgeons				DrStenhouse Mr Tuson and Mr Attfield
St. Thomas's (a)	Mr Rainey, Mr Ord Mr Wood	Mr Clark Mr Rainey	Mr Grainger Dr Brinton	Dr Thomson	Dr Peacock	Dr Bennett	Mr South	Dr Waller	Dr Bristowe	Dr Brinton	Mr Jones		Mr Simon	Mr Rainey	Mr Patient	Mr. Macmurdo.	Dr Thomson
Guy's(c)..... *Winter* ...	Mr Forster Mr Brown Dr Wilks	Mr Poland, Dr Pavy	Dr Pavy	Dr Taylor		Dr Addison Dr Barlow Dr Hughes Dr O Rees Dr Gull, Dr Habershon Dr Wilks	Mr Hilton Mr Birkett Mr Cock	Dr Lever Dr Oldham				Mr Brown					
Summer					Dr Habershon		Mr Poland Mr Callaway Mr Forster	Dr Lever Dr Oldham	Mr Johnson	Dr. Taylor	Dr Pavy	Dr Odling	Dr Wilks		Mr Salter	Mr France	Dr Odling
Westminster	Mr C Heath	Mr Holthouse	Mr Hillman	Mr H Lewis, Mr Maugham	Dr Radcliffe	Dr Basham	Mr Guthrie Mr Brooke	Dr F Bird	Mr Syme	Dr. Fincham		Mr Brooke			Mr Clendon		Mr H Lewis
St. George's	Mr Holmes Mr Carter	Mr Pollock Mr H Gray	Mr Johnson	Mr Noad	Dr Pitman	Dr Nairne Dr Page	Mr Tatum	Dr R Lee	Mr Masters	Dr Fuller						Mr Tatum	Mr Noad
Grosvenor-pl School, adjoining St. George's...	Dr Deville Mr Hart MrBannister	Dr Deville	Dr Lankester	Mr Rodgers;	Dr Ayres	Mr Ballard	Mr T S Wells	Mr Bloxam	Dr Lankester	Dr. Richardson.	Mr Hulme	Dr Thudichum	Dr Richardson	Dr Webb	Mr Hulme	Mr T S Wells	Mr Rodgers
London	Mr N Ward Dr Andrew Clark, Mr Gowlland	Mr Adams & Mr N Ward	Dr A Clark	Dr Letheby	Dr H Davies	Dr N Parker	Mr Curling Mr Critchett	Dr Ramsbotham	Mr Bentley	Dr Ramsbotham, Dr Letheby	Mr Coles			Dr Clark	Mr Barrett	Mr Critchett	
Middlesex ...	Mr Nunn, Mr Flower	Mr Moore	Mr De Morgan	Mr T Taylor Mr Heisch	DrH Thompson	Dr Stewart Dr Goodfellow	Mr Shaw	Dr Frere	Mr Bentley	Dr Goodfellow Mr Henry	Mr Flower		Mr Nunn Mr Sibley	Dr Van der Byl			Mr Taylor Mr Heisch
University College ...	Mr Ellis & Mr D B Reid	Mr Ellis	Dr Sharpey, F.R.S. Dr G Harley	Dr Williamson	Dr Garrod	Dr Walshe	Mr Erichsen	Dr Murphy	Dr Lindley F.R.S.	Dr W B Carpenter	Dr. Grant, F.R.S.(d)	Prof Potter	Dr Jenner		Mr Shelley	Mr W Jones	Dr Williamson
Charing-cross	Mr Goldsbro	Mr E Canton	Dr H Salter	Mr Lewis	Dr Steggall	Dr Chowne Dr Willshire	Mr Hancock	Dr Chowne Mr Hird	Mr Symes	Dr. Birkett Mr. Hird	Mr Barwell						Mr Lewis
King's College	Mr Lee Mr Wood	Mr Partridge	Dr Beale	Dr Miller Mr Hadow	Dr Royle	Dr Budd	Mr Fergusson	Dr Farre	Mr Henfrey	Dr Guy	Mr T R Jones						Mr Bloxam
St. Mary's(e)	Mr Walton Mr Gascoyen	Mr Walton Mr Blenkins Mr Lane	Mr Lane Mr Blenkins Mr Jas. Lane	Dr Bernays	Dr Sieveking	Dr Chambers Dr Sibson	Mr Coulson Mr S Smith	Dr T Smith Mr Brown		Dr Sanderson	Mr Hewitt	Mr Blyth	Dr Markham		Mr Nasmyth	Mr W Cooper	Dr Bernays

(a) Clinical Lectures by Dr Barker; Public Health, Dr Greenhow. (b) Microscopical Demonstrations. (c) Demonstrations on Cutaneous Diseases by Dr. Addison and Dr. Gull; Mondays at 1. (d) And Palæo-Zoology.
(e) Clinical Medicine by Dr Alderson, Clinical Surgery by Mr. Ure; Military Surgery, Tropical Medicine, and the Hygiene of Fleets and Armies, by Dr. James Bird; and Aural Surgery by Mr. Toynbee.

CLINICAL LECTURES on Medicine and Surgery are now delivered in almost every Hospital attached to a Medical School.

Queen's Col., Birmingham.	Mr Pemberton Mr. Jordan	Mr S Cox Mr Bolton	Dr Heslop	Mr Shaw	Dr Fife Mr Knowles	DrJohnstone	Mr S Cox	Mr Berry	Mr Knowles	Dr Davies	Dr Jordan			Dr Heslop			Mr Shaw
Sydenham Coll., Birm.	Mr Jones	Mr Elkington Mr Jones	Dr Keyworth	Dr A Hill	Dr Russell Mr Bassett	Dr Fletcher	Mr A Baker	Dr Elkington Mr Blake	Mr Westcott	Mr Orford			Dr Russell				Dr A Hill
Newcastle Coll. of Prac. Science in connexion with the U. of London (a)	Mr McNay Mr Preston Mr Stainthorpe Mr Dawson.	Mr M'Nay	Mr Newton Mr Furness Mr M'Nay	Mr Gray, jun. Mr Zenner	Mr Newton Mr Gibson Mr Craster	Dr Robinson	Sir John Fife Mr W H Fife	Dr Dawson	Mr Sanderson, jun.	Dr Robinson Mr Rayne				Mr Nicholson		Mr J B Fife	Mr Gray, jun. Mr Zenner
Newcastle-on-Tyne Col. of Med. & Sur. in connexion with Univ. of Durham (b)	Dr Penny		Dr Embleton Mr Gibb Mr Wilson	Dr Richardson Mr Browell	Dr Humble	Dr Charlton Dr Embleton	Dr Heath	Mr Frost Dr Gibson	Mr Thornhill Mr Oliver	Dr Pearse Mr Robinson Mr Chater			Dr Fenwick Mr Gibb				Dr Richardson Mr Browell
Sheffd. Med. Institution	Mr Walker	Mr Walker	Mr Gregory Mr Skinner Mr Allanson Mr Favell	Dr Bingley	Dr Shearman Dr Jackson	DrBartolome Dr Law	Mr Barber	Mr Jackson	Mr Walker	Dr Law							Dr Bingley
Leeds Schl. of Medicine		Mr Price Mr Wheelhouse	Mr Ikin Mr S Hey Mr Price Mr Wheelhouse	Mr Morley Mr Scattergood	Mr Bishop	Dr Chadwick Dr Heaton	Mr Hey MrNunneley	MrSmith, Mr Braithwaite	Dr Heaton	Dr P Smith						Mr Nuuneley (c)	Mr Scattergood
Bristol Med. School.....	MrC Leonard Mr Clarke	Mr Coe MrC Leonard	Dr Martyn	Mr Herapath	Dr Burder	Dr Brittan	Mr Clark Mr Prichard	Dr Swayne	MrEtheridge	Mr Clarke							Mr Herapath
Liverpool Royal Infir.		Mr Fletcher Mr Waters	Mr Fletcher Mr Waters	Dr J B Edwards	Dr Nevins	Dr Inman	Mr Long	Mr Batty, Mr Grimsdale	Mr Archer	Dr Cameron Dr Edwards			Mr Fletcher Mr Waters			Dr Taylor	Dr Brett
York School of Medicine	Mr Hornby Mr North		Mr Allen Mr Hornby	Mr Procter	Dr Williams Mr Moore	Dr Swaine	Mr Hey, Mr Keyworth	Mr Allen Mr Anderson	Mr Moore	Mr Procter				Mr Hornby			
Hull & East Riding Schl. of Medicine & Anatomy	Dr King		Mr Craven	Mr Beckett	Mr Cernley	Dr Daly	Mr Gibson	Mr Hardey	Mr Nevins	Mr Munroe							Mr Beckett
Manches. Rl. Schl. of Med. and Surgery	Mr Lund	Dr Renaud	Mr Turner Mr Smith Dr Roberts	Mr Stone	Mr Childs	Dr Watts Dr Browne	Mr Dumville Mr Southam	Mr Heath Dr Whitehead	Mr Grindon	Mr Greaves Mr Harrison			Dr Renaud	Mr Smith		Mr Hunt Mr Lund	Mr Stone
University of Edinburgh	Prof Goodsir	Prof Goodsir		Dr Gregory	Dr Christison	DrChristison Dr Bennett	Prof Syme Prof Miller	Dr Simpson	Dr Balfour	Dr Traill	Prof Goodsir	Prof Forbes	Dr Henderson	Dr Bennett			Dr Gregory
Surgeons' Hall, Edin.	Dr Struthers	Dr Struthers	Dr Sanders	Dr Macadam	Dr Maclagan	Dr Keiller Dr Gairdner Dr Begbie	Mr Spence Mr Lister	Dr Keiller Dr Duncan		Dr Littlejohn	Dr Struthers		Dr Haldane				Dr Macadam
Anderson's U., Glasgow	Drs Buchanan	Drs Buchanan	Drs Buchanan	Dr Penny	Dr Morton	Dr Anderson	Dr Hunter	Dr Paterson	Mr Bell	Dr Crawford		Dr Taylor					Dr Penny
Marischal Coll. and U., Aberdeen (d)	Prof Lizars	Prof Lizars	Prof Lizars	Dr Clark Mr Brazier	Dr Henderson	Dr Ogilvie Dr Macrobin	Prof Pirrie	Dr Dyce	DrBeveridge	Dr Ogston				Dr Ogilvie			Dr Clarke Mr Brazier
University & King's Coll., Aberdeen (e)	Dr Redfern		Dr Redfern	Dr Fyfe	Dr Rattray	Dr Williamson	Dr Kerr	Dr Rainy	Rev J C Brown	Dr Reid		Mr Thomson		Dr Redfern		Dr Cadenhead	Dr Fyfe
University of Glasgow.....	Dr Thomson	Dr Thomson	Dr Thomson	Dr Anderson	Dr Easton	Dr Macfarlane	Dr Lawrie	Dr Pagan	Dr Arnott	Dr Rainy						Dr Mackenzie	Dr Anderson

(a) Military Surgery, by Sir John Fife. (b) And Mental Diseases, Dr. Mackintosh; Dietetics, Dr. Humble; Medical Ethics, Dr. Greenhow. (c) And Aural Practice.
(d) And Dietetics and Hygiene, Dr. Henderson; and Natural History, Professor Nicol. (e) Institutes of Medicine (Physiology) Dr. Christie; and Natural History, Rev. J. Longmuir.

TABLE OF FEES TO THE LECTURES REQUIRED BY COLLEGE AND HALL.

	Anatomical Demonstrations.			Anatomy, Descriptive and Surgical.			Structural and General Anatomy and Physiology.			Chemistry.			Materia Medica and Therapeutics.			Principles and Practice of Medicine.			Principles and Practice of Surgery.			Midwifery and diseases of Women and Children.			Botany.			Medical Jurisprudence.			Practical Chemistry.	
No. of Courses required by College and Hall	2			3			3			1			1			2			2			2			1			1			1	
—	One Course.	Two Courses.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course or Session.	Two Courses.	Perpetual.	One Course or Session.	A Second Course.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course.	Two Courses.	Perpetual.	One Course.	Perpetual.
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
St. Bartholomew's	3 3	...	5 5	5 5	7 7	10 10	5 5	7 7	10 10	5 5	...	7 7	4 4	...	6 6	5 5	...	7 7	5 5	3 3	7 7	4 4	...	6 6	3 3	...	4 4	3 3	...	4 4	2 2	3 3
St. Thomas's	First and Second Year, £40 each, and every succeeding year, £10; perpetual to the whole, £90.																															
Guy's	Entire Lectures and Hospital Practice—First year, £40; second, £40; every succeeding year, £10; perpetual, £100.																															
Westminster	...	...	5 5	5 5	...	7 7	5 5	...	7 7	5 5	...	7 7	3 3	...	4 4	4 4	...	5 5	4 4	...	5 5	3 3	...	4 4	2 2	...	3 3	2 2	...	3 3	2 2	...
St. George's	...	...	...	6 6	...	8 8	6 6	...	8 8	6 6	...	8 8	5 5	...	6 6	5 5	...	6 6	4 4	...	6 6	4 4	...	6 6	3 3	...	4 4	3 3	...	4 4	4 4	...
Grosvenor-pl. Sc. of Anat. & Me.	...	...	...	6 6	...	8 8	6 6	...	8 8	5 5	...	6 6	5 5	...	6 6	5 5	...	6 6	5 5	...	6 6	3 3	...	6 6	3 3	...	4 4	3 3	...	4 4	3 3	...
London	4 4	...	7 7	5 5	...	8 8	4 4	...	7 7	7 7	...	7 7	3 3	...	4 4	4 4	...	7 7	4 4	...	6 6	4 4	...	6 6	3 3	...	4 4	3 3	...	4 4	2 2	3 3
Middlesex	4 4	...	6 6	8 8(a)	...	11 11(a	4 4	...	6 6	6 6	...	8 8	3 3	...	5 5	4 4	...	6 6	4 4	5 5	6 6	3 3	...	5 5	3 3	...	4 4	3 3	...	5 5	3 3(b)	...
University	...	3 0	...	6 0	...	9 0	6 0	...	9 0	6 0	...	9 0	4 0	...	6 0	5 0	...	8 0	4 10	...	6 0	4 0	...	6 0	3 0	...	6 0	3 0	...	...	4 0	...
Charing-cross...	2 2	3 3	4 4	4 4	6 6	7 7	4 4	6 6	7 7	5 5	6 6	7 7	4 4	5 5	6 6	4 4	6 6	7 7	3 3	5 5	6 6	3 3	5 5	6 6	2 2	3 3	4 4	2 2	3 3	4 4	2 2	...
King's	...	...	...	6 6	...	9 9	6 6	...	9 9	7 7	...	9 9	4 4	...	6 6	5 5	...	7 7	5 5	...	7 7	4 4	...	6 6	3 3	...	4 4	3 3	...	4 4	4 4	8 8
St. Mary's	...	...	...	6 6	...	8 8	6 6	...	8 8	5 5	...	7 7	4 4	...	6 6	4 4	...	6 6	4 4	...	6 6	4 4	...	6 6	3 3	...	4 4	3 3	...	4 4	2 2	3 3
Queen's Coll., Birmingham..	4 4	...	...	7 7(c)	...	...	7 7(c)	...	...	4 4	...	...	5 5	...	...	5 5	...	...	5 5	...	...	4 4	...	...	4 4	...	...	4 4	...	...	3 3	...
Sydenham Coll., do.	...	...	...	4 4	...	7 7	4 4	...	9 9	4 4	...	7 7	4 4	...	7 7	4 4	...	7 7	4 4	...	7 7	3 3	...	4 4	3 3	...	4 4	3 3	...	4 4	2 2	...
Bristol Medical School ...	...	...	...	5 5	...	9 9	5 5	...	9 9	5 5	...	8 8	4 4	...	6 6	4 4	...	6 6	4 4	...	6 6	4 4	...	6 6	3 3	...	5 5	3 3	...	5 5	3 3	...
Hull and East Riding Sch. of Medicine	4 4	...	6 6	...	...	...	5 5	...	8 8	5 5	...	...	5 5	...	7 7	5 5	...	7 7	3 3	...	5 5	4 4	...	6 6	3 3	...	...	3 3	...	...	...	...
Leeds School of Medicine(d)	...	...	...	4 4	3 3	7 7	6 6	4 4	10 10	4 4	3 3	7 7	5 5	3 3	8 8	5 5	3 3	8 8	3 3	2 2	5 5	3 3	2 2	5 5	2 12 6	1 11 6	4 4	2 12 6	1 11 6	4 4	1 1	...
Liverpool Royal Infirmary School of Medicine ...	...	...	...	3 3	...	...	8 8	...	...	5 5	...	...	4 4	...	...	5 5	...	...	4 4	...	...	4 4	...	...	3 3	...	...	3 3	...	...	3 3	...
Manchester Royal School of Medicine and Surgery *...	2 2	...	...	...	...	...	4 4	...	...	4 4	...	...	4 4	...	...	4 4	...	...	4 4	...	...	4 4	...	...	...	...	...	3 3	...	...	3 3	...
Newcastle-on-Tyne College of Medicine, in connexion with University of Durham	3 3(d)	...	...	3 3	...	...	4 4	...	...	4 4	...	...	3 3	...	...	3 3	...	...	3 3	...	...	3 3	...	...	3 3	...	...	3 3	...	...	...	...
Newcastle College of Practical Science	3 3	...	...	...	...	...	4 4	...	...	4 4	...	...	3 3	...	...	3 3	...	...	3 3	...	...	3 3	...	...	3 3	...	...	3 3	...	...	...	...
Sheffield Medical Institution	2 2	...	...	...	...	...	4 4	...	...	6 6	...	...	4 4	...	...	4 4	...	...	3 3	...	...	3 3	...	...	3 3	...	...	3 3	...	...	...	...
York School of Medicine ...	4 4	...	7 7	...	...	...	6 6	...	10 10	5 5	...	7 7	5 5	...	7 7	5 5	...	8 8	3 3	...	5 5	3 3	...	5 5	2 12	...	4 4	2 12	...	4 4	...	...

* The Chatham-street School, Manchester, is now united with the Manchester Royal School; the Lectures, etc., will be delivered in the late Chatham-street School.

(a) Single Course of Anatomy, Physiology, Demonstrations, and Dissection, £8 8s.; Perpetual, £15 15s. (b) For General Pupils of the School, £2 2s. (c) £7 7s. for Surgical Anatomy, Descriptive Anatomy, and General Anatomy and Physiology. (d) Surgical Anatomy and Demonstrations, £3 3s. together.

PERPETUAL FEES FOR LECTURES, ETC., REQUIRED BY COLLEGE AND HALL,—

St. Bartholomew's, £94 10s. (Lectures and Hospital Practice)
St. Thomas's, £90 Ditto
Guy's, £90 Ditto
Westminster, £71 8s. Ditto
St. George's, £96 12s. Ditto
London, £88 4s. Ditto
Middlesex, £75 (exclusive of Prac. Chem.) Ditto
University, £90 Ditto

Charing Cross, £73 7s. (Lectures and Hospital Practice)
King's, £95 11s. Ditto
St. Mary's, £89 5s. Ditto
School adjoining St. George's, £73 10s. Ditto
Queen's College, Birmingham, £63 10s. Ditto
Sydenham College, Birmingham, £42 (Lectures only)
Bristol Medical School, £47 5s. (exclusive of Prac. Chem.) Ditto
Hull and East Riding School of Medicine, £42 Ditto Ditto

Leeds School of Medicine, £42 (exclusive of Prac. Chemy.) (Lectures only.)
Liverpool Royal Infirmary School of Medicine, £45 Ditto
Manchester Royal School of Medicine and Surgery, £42 Ditto
Newcastle-on-Tyne College of Medicine, £42 Ditto
Sheffield Medical Institution, £42 (exclusive of Practical Chemistry.) Ditto
York School of Medicine, £42 Ditto

HOSPITAL STAFFS.

TABLE OF MEDICAL AND SURGICAL OFFICERS OF THE LONDON HOSPITALS.

	CONSULTING PHYSICIANS.	PHYSICIANS.	PHYSICIAN-ACCOUCHEURS.	SURGEONS.	SURGEON-DENTISTS.	OPHTHALMIC SURGEONS.	ASSISTANT-PHYSICIANS.	ASSISTANT-SURGEONS.
King's College Hospital.....	Dr. Watson Dr. Ferguson	Dr. Budd Dr. Todd Dr. G. Johnson	Dr. A. Farre	Mr. Fergusson Mr. Partridge Mr. Bowman Mr. Lee	Mr. Cartwright, jun.		Dr. Murchison Dr. C. Evans	Mr. Wood Mr. Hulke
University College Hospital...	Mr. Quain (a)	Dr. Walshe Dr. Parkes Dr. Garrod Dr. Jenner	Dr. Murphy	Mr. Quain Mr. Erichsen	Mr. Shelley	Mr. Jones	Dr. Hare	Mr. Marshall Mr. H. Thompson
St. Bartholomew's Hospital		Dr. Hue Dr. Burrows Dr. F. J. Farre Dr. Jeaffreson	Dr. West	Mr. Lawrence Mr. Stanley Mr. Lloyd Mr. Skey			Dr. Black Dr. Baly Dr. Kirkes Dr. Martin	Mr. Wormald Mr. Paget Mr. M'Whinnie Mr. Coote
St. Thomas's Hospital (b) ...	Dr. Roots	Dr. Barker Dr. Bennett Dr. Goolden	Dr. Waller Dr. Griffith	Mr. South Mr. Mackmurdo Mr. Solly Mr. Clark Mr. Simon	Mr. Patient	Mr. Mackmurdo	Dr. Peacock Dr. Bristowe	
Guy's Hospital...	Dr. Bright	Dr. Addison Dr. Barlow Dr. Hughes Dr. Rees	Dr. Lever Dr. Oldham	Mr. Cock Mr. Hilton Mr. Birkett	Mr. Bell	Mr. France	Dr. Gull Dr. Habershon Dr. Wilks	Mr. Poland Mr. Calloway Mr. Forster
Westminster Hospital.....		Dr. Roe Dr. Basham Dr. Fincham	Dr. Bird Dr. Ogle	Mr. Holt Mr. Guthrie Mr. Brooke	Mr. Clendon		Dr. Radcliffe Dr. Marcet	Mr. Holthouse Mr. Hillman
St. George's Hospital		Dr. Wilson Dr. Nairne Dr. Page Dr. B. Jones	Dr. R. Lee	Mr. Hawkins Mr. Cutler Mr. Tatum [son Mr. H. C. John-			Dr. Pitman Dr. Fuller	Mr. Hewett Mr. Pollock
London Hospital		Dr. Little Dr. Fraser Dr. Davies	Dr. Ramsbotham	Mr. Luke Mr. Adams Mr. Curling			Dr. Parker Dr. Gibbon Dr. A. Clark	Mr. Critchett Mr. N. Ward Mr. Wordsworth
Middlesex Hospital		Dr. Hawkins Dr. S. Thompson Dr. Stewart	Dr. Frere	Mr. Shaw Mr. de Morgan Mr. Moore	Mr. Tomes	Mr. Moore	Dr. Goodfellow Dr. H. Thompson	Mr. Henry
Charing - Cross Hospital.....	Dr. Shearman	Dr. Golding Dr. Chowne		Mr. Hancock Mr. E. Canton			Dr. Willshire Dr. Salter	Mr. Hird Mr. Barwell
St. Mary's Hospital (c)		Dr. Alderson Dr. Chambers Dr. Sibson	Dr. T. Smith Mr. J. B. Brown (d)	Mr. Coulson Mr. Lane Mr. Ure	Mr. Nasmyth	Mr. W. Cooper	Dr. H. Jones Dr. Sieveking Dr. Markham	Mr. S. Smith Mr. Walton Mr. Lane

(a) To the Eye Infirmary. (b) Consulting Surgeon, Mr. Green. (c) Aural Surgeon, Mr. Toynbee. (d) Surgeon-Accoucheur.

FEES FOR HOSPITAL PRACTICE.

	MEDICAL PRACTICE.						SURGICAL PRACTICE.						DRESSERSHIPS.		
	3 Mos.	6 Mos.	9 Mos.	12 Mos.	18 Mos.	Perpetl.	3 Mos.	6 Mos.	12 Mos.	18 Mos.	3 Years	Perpetl.	3 Mos.	6 Mos.	12 Mos.
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
St. Bartholomew's	...	10 10	12 12	...	15 15	31 10	...	15 15	21 10	...	26 5	31 10	12 12	18 18	26 5
St. Thomas's (a)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Guy's (a)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Westminster (b)	...	10 10	...	12 12	15 15	21 0	8 8	12 12	21 0	...	...	31 10			
St George's	...	8 8	...	16 16	...	25 4	...	15 15	21 0	...	...	52 10	(c)	(c)	(c)
London	...	6 6	...	11 11	...	21 0	...	...	12 12 (d)	18 18 (e)	26 5 (f)	...	...	...	5 5 (g)
Middlesex	6 6	10 10	...	...	15 15	21 0	...	10 10	12 12	...	18 18	21 0			
University (i)	...	10 10	...	15 15	...	26 5 (h)	...	10 10	15 15	...		26 5 (h)			
Charing-cross (k)	6 6	10 10	...	15 15	...	...	6 6	10 10	15 15	...					
King's (l)	6 6	10 10	...	...	15 15	21 0	10 10	15 15	...	21 0 (m)		26 5			
St. Mary's	5 5	7 7	...	12 12	15 15	21 0	...	9 9	21 0	...		31 10			

(a) See Table of Fees to Lectures, p. 330.

(b) Hospital Practice, required by College and Hall, composition fee, 26 guineas.

(c) Pupils entering to the Surgical Practice for twelve months are allowed, when qualified, to dress patients for three months, and perpetual pupils for six months, without additional fee. The dresser of the Surgeon of the week boards at the Hospital free of expense.

(d) Including six months' dressership.

(e) Including twelve months' dressership.

(f) Including twelve months' dressership.

(g) Additional during the three years; and for twelve months' dressership after expiration of the three years, £8 8s.

(h) £26 5s. for both Medical and Surgical.

(i) For six months' Practical Pharmacy, £5 5s.; three months, £3 3s.

(k) Full period required by College and Hall to both practices, 25 guineas.

(l) Perpetual to the Medical and Surgical Practice:—Matriculated Students, £31 10s.; non-Matriculated, £36 15s.

(m) For twenty-one months.

TABLE OF FEES TO LECTURES *NOT* REQUIRED BY COLLEGE OR HALL.

—	Comparative Anatomy.		Experimental and Descriptive Natural Philosophy.	Practical Pathology.		Microscopical Anatomy.	Dentistry.	Ophthalmic Surgery.
	One Course.	Perpetual.	One Course.	One Course.	Perpetual.	One Course.	One Course.	One Course.
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
St. Bartholomew's	2 2	3 3	...	...	...	...	...	...
St. Thomas's	...	...	...	...	...	...	...	...
Guy's	...	...	...	...	...	...	...	...
Westminster	...	...	1 1	...	...	...	...	...
St. George's (a)	...	...	...	...	...	...	...	...
London	...	...	...	...	...	...	...	...
Middlesex	2 2	...	...	2 2	3 3	2 2	...	...
University	4 0 (b)	8 0 (b)	...	...	...	...	1 1 (c)	...
Charing-cross	3 3	4 4	3 3	...	...	...	...	...
King's (d)	3 3	4 4	3 3	...	...	...	...	...
St. Mary's	...	...	...	2 2	3 3	...	...	...
Schol. adj. St. Grge's.	2 2	3 3	1 1 2	2 1 1	2 2	...	1 1 2 2	...

(a) Demonstrations of Cutaneous Disease, one Course, £12 12s.; Perpetual £15 15s.
(b) And Zoology £3.
(c) 2nd part, £2 2s.
(d) Logic, one Course, £2 2s.

GENERAL HOSPITAL STATISTICS.

	No. of Beds.	Days of Operation.	Average No. of Inmates 1851.
St. Bartholomew's	650	Saturdays at 1½	522
St. Thomas's	520	Saturdays at 1	449
Guy's	549	Tuesdays at 1	475
Westminster	175	Saturdays at 1	131
St. George's	325	Thursdays at 1	275
London	400	Thursdays at 1½	308
Middlesex	300	Thursdays at 12½	255
University	120	Wednesdays at 2	86
Charing-cross	100	Saturdays at 1	100
King's	120	Saturdays at 1½	106
St. Mary's	150	Wednesdays at 1	...

THE INTRODUCTORY LECTURES.

(The Winter Session commences this year on Oct. 1, ending 4th of April. The Summer Session begins May 1, lasting to the middle or end of July.)

King's College	Mr. Henfrey.
University College	Dr. Parkes.
St. Bartholomew's Hospital	Mr. M'Whinnie.
St. Thomas's Hospital	Mr. Le Gros Clark.
Guy's Hospital	Mr. T. Bell.
Westminster Hospital	Dr. Fincham.
St. George's Hospital	Dr. Robert Lee, F.R.S.
London Hospital	Professor Bentley.
Middlesex Hospital	Mr. Campbell De Morgan.
Charing-cross Hospital	Dr. Chowne.
St. Mary's Hospital	Dr. Chambers.
School of Medicine adjoining St. George's	Mr. Spencer Wells.
Queen's College, Birmingham	Mr. Bolton.
Sydenham College, Birmingham	Mr. G. Elkington.
Leeds School of Medicine	Mr. G. Morley.
Liverpool Royal Infirmary	Mr. T. F. Grimsdale.
Manchester Royal School of Medicine and Surgery	Mr. Turner.
Chatham-street School of Medicine	Mr. Stone.
Sheffield Medical Institution	Mr. H. Walker.
Newcastle College of Practical Science	Mr. W. H. Fife.
Newcastle-on-Tyne College of Medicine	Dr. Pearse.
York School of Medicine	Dr Swaine.

MEDICAL AGENTS.

Bowmer, Joseph, 50, Lincoln's Inn-fields.
Franklin, Thomas, 7 Cadogan-street, Chelsea.
Harris, Charles, James, 128 Strand.
Humpage, Benjamin, 44, Chancery Lane.
Jacobson, Nathaniel, 38, Walbrook.
Lane and Lara, 14, John-street, Adelphi.
Orridge, Benjamin B., 30, Bucklersbury.

HOSPITALS AND DISPENSARIES FOR PARTICULAR DISEASES.

Bethlem Hospital for Lunatics, St. George's-fields.
Blenheim-st. Inf. & Free Dispensary, Blenheim-st., Oxford-st.
Bloomsbury Dispensary, 62, Great Russell-street.
British Lying-in Hospital, Endell-street, Long Acre.
Brixton, Streatham-hill, and Herne-hill Dispensary.
Central London Ophthalmic Hospital, 1, Calthorpe-st., Gray's-inn-road.
Chelsea, Brompton, and Belgrave Dispensary, Sloane-sq., Chelsea.
City Dispensary, 76, Queen-street, Cheapside.
City of London and East London Dispensary, 40, Wilson-street, Finsbury-square.
City of London Hospital for Diseases of the Chest, Victoria-park.
City of London Lying-in Hospital, City-road.
City Orthopædic Hospital, Hatton-garden.
Clapham General Dispensary, Manor-street, Clapham
Eastern Dispensary, 46, Great Alie-street.
Farringdon General Dispensary and Lying-in Charity, 17, Bartlett's-buildings, Holborn.
Finsbury Dispensary, 16, Woodbridge-street.
General Dispensary for Children, 16, Queen-street, Worship-street.
General Lying-in Hospital, York-road, Lambeth.
German Hospital, Dalston.
Harrison's Spinal Institution, Middlesex-place, New-road.
Holloway and N. Islington Dispensary, 2, Lowther-cottages, and Palmer-place, Holloway.
Hospital for Consumption and Diseases of the Chest, Brompton.
Hospital for Diseases of the Skin, 25, New Bridge-st., Blackfriars.
Hospital for the Cure of Deformities, Portland-rd., Regent's-pk.
Hospital for Sick Children.
Hospital for Women, Soho-sq., 21.
Islington Dispensary, 1, Church-row, Islington.
Kensington Dispensary, Church-street, Kensington.
Lock Hos. & Asylum, Harrow-road.
London Dispensary, 21, Church-street, Spitalfields.
London Fever Hospital, 1, Liverpool-road, Islington.
Lying-in Instn., 90, Newman-st.
Margaret-street Dispensary for Consumption, and Diseases of the Chest, 26, Margaret-street, Regent-st.
Marylebone Infirmary, New-road.
Metropolitan Convalescent Institution, 32, Sackville-street.
Metropolitan Dispensary, 9, Fore-street, Cripplegate.
Metropolitan Ear Infirmary, 32, Sackville-street.
Metropolitan Free Hospital, Devonshire-square, City.
Middlesex Lunatic Asy., Hanwell.
Middlesex County Lunatic Asy., Colney Hatch.
National Vaccine Institution, 8, Russell-place, Fitzroy-square.
Northern Dispensary, and for Diseases of the Eye, 9, Somers-place, New-road.
North London Inf. for Diseases of the Eye, 31, Charlotte-street, Portland-place.
Pimlico & W. London Gen. Disp., 11, Shaftesbury-ter., Pimlico.
Public Disp. for the Relief of Sick Poor, 6, Carey-st., Lincoln's-inn.
Queen Adelaide's Dispensary, Wilmot-square, Bethnal-green.
Queen Adelaide's Lying in Hospital, Queen-street, Golden-square.
Queen Charlotte's Lying-in Hos., New Road, St. Marylebone.
Royal Dispensary for Diseases of the Ear, Dean-street, Soho.
Royal Free Hospital, Gray's-inn-road.
Royal General Dispensary, 22, Burton-crescent, St. Pancras.
Royal General Dispensary, 26, Bartholomew-cl., Aldersgate-st.
Royal Inf. for Asthma, Consumption, etc., City-road, near Windsor-terrace.
Royal Inf. for Diseases of the Eye, Cork-street, Burlington-gardens.
Royal Jennerian and London Vaccine Institution, 18, Providence-row, Finsbury.
Royal Kent Dispensary, Greenwich road
Royal London Ophthalmic Hos., Moorfields.
Royal Maternity Charity, for Delivering Poor Married Women at their own Habitations, 17, Little Knightrider-street, Doctors'-commons.
Royal Orthopædic Hospital for the Cure of Club Foot, Lateral Curvature of the Spine, and all other Contractions and Deformities, Oxford-street.
Royal Pimlico Dispensary and Lying-in Instn., 1, Belgrave-ter.
Royal Sea-bathing Infirmary, Office, 4, Dowgate-hill, City.
Royal South London Dispnsy., 28, Laurie-ter., Westminster-road.
Royal Universal Inf. for Children, Waterloo-bridge-road.
Royal Westminster Ophthalmic Hospital.
Samaritan Free Hospital for Women and Children, 27, Orchard-street, Portman-square; and Convalescent Institution, St. John's-terrace, Notting-hill.
St. George's and St. James's Disp., 60, King-st., Golden-square, and 48, Mount-street, Grosvenor-sq.
St. George and St. James's Lying-in Charity for Home Relief.
St. Luke's Hospital for Lunatics, Old-street.
St. Mark's Hospital for Fistula and other Diseases of the Rectum, City-road.
St. Marylebone General Dispensary, 77, Welbeck-street.
St. Marylebone Eye and Ear Institution. 1, St. John's-place, Lisson-grove.
St. Paul and Barnabas' Dispy., 67, Upper Ebury-street, Pimlico.
Small-pox and Vaccination Hos., Upper Holloway.
Stamford-hill, Stoke Newington, Clapton, West Hackney, Kingsland, and Dalston Dispensary.
Surrey Disp., 6, Great Dover-road.
Tower Hamlets' Disp., 40, Colet-pl., Commercial-road East.
Western Dispensary, 59, Tothill-street, Westminster.
West London & Chelsea Inf. for Diseases of the Eye, Jubilee-place, King's-road.
West London Dispensary, 29, Duke-street, Manchester-square.

Western Dispensary for Diseases of the Eye, 41, Queen-street, Edgware-road.
Western General Dispensary, Lisson-grove, New-road.
Western Dispensary for Diseases of the Skin, 21A, Charlotte-st., Fitzroy-square.
Westminster General Dispensary, 9, Gerard-street, Soho.

PROVINCIAL HOSPITALS AND DISPENSARIES.

The figures attached denote the NUMBER OF BEDS.

BEDFORDSHIRE.
Bedford Fever Hospital, 50.
Bedford General Infirmary, 96.
Bedford Lunatic Asylum, 270.
Woburn Infirmary.

BERKSHIRE.
Newbury Dispensary.
Reading—Rl. Berks. Hosp., 89.
Reading Dispensary.
Sonning Dispensary.
Windsor Royal Dispensary.

BUCKINGHAMSHIRE.
Aylesbury—Buckinghamshire General Infirmary, 34.

CAMBRIDGESHIRE.
Addenbrooke's Hospital, 106.

CHESHIRE.
Birkenhead Hosp. and Disp., 16.
Chester General Infirmary, 100.
Macclesfield Dispensary.
Stockport Infirmary, 50.

CORNWALL.
Bodmin. — East Cornwall Elizabethan Hospital and Disp., 20.
County Lunatic Asyl., Bodmin, 267.
Falmouth Public Dispensary and Humane Society.
Helston Public Dispensary.
Penzance Public Dispensary.
Truro Dispensary.
Truro.—Royal Cornwall Inf., 56.

CUMBERLAND.
Carlisle.—Cumberland Infir., 52.
Carlisle Dispensary.
Carlisle House of Recovery.
Whitehaven Fever Hospital.
Whitehaven and West Cumberland Infirmary, 50.
Workington Dispensary.

DERBYSHIRE.
Buxton Bath Charity.
Derby. — Derbyshire Gen. Infir., 160.
Derby Self-supporting Dispensary.

DEVONSHIRE.
Barnstaple and North Devon Dis.
Bideford Dispensary.
Devon County Lunatic Asylum, near Exeter, 450.
Devonport and Stonehouse General Dispensary and Institution for Diseases of the Eye and Ear.
Exeter.—Devon and Exeter Hospital, 201.
Exeter Dispensary.
Exeter Lying-in Charity.
Honiton Dispensary.
Exeter—West of England Eye Infirmary, 17.
North Devon Infirmary, 80.
Plymouth Public Dispensary,
Plymouth Royal Eye Infirm., 12.
South Devon and East Cornwall Hospital, Plymouth, 55.
St. Thomas's Hospital for Lunatics, near Exeter, 50.
Teignmouth, Dawlish, and Newton Infirmary and Dispensary.
Teignmouth Dispensary, 20.
Tiverton Dispensary.
Torbay Infir. and Dis. Torquay.

DORSETSHIRE.
Dorset County Hos., Dorchester, 45.
Dorset County Lunatic Asylum, Forston, near Dorchester, 180.
Dorset County and Weymouth Royal Eye Infirmary, 15.
Weymouth Infirm. and Disp., 10.
Weymouth Sanatorium, 7.

DURHAM.
Darlington Dispensary.
Durham County Hospital, 48.
Gateshead Dispensary.
Middlesboro'-on-Tees Dispensary.
Seaham Harbour Infirmary, 14
South Shields and Westoe Dispensary.
Stockton-upon-Tees Dispensary.
Sunderland Eye Infirmary.
Sunderland General Infirm., 30.

ESSEX.
Essex and Colchester Hospital, Colchester, 94.

GLOUCESTERSHIRE.
Bristol Dispensary.
Bristol Disp. for Diseases of Skin.
Bristol Dispensary for the Cure of Complaints of the Eye.
Bristol Dorcas Society.
Bristol Eye Hospital.
Bristol General Hospital, 32.
Bristol Royal Infirmary, 242.
Bristol Lying-in Institution.
Bristol—St. Peter's Hospital for Sick and Lunatic Paupers, 90.
Cheltenham Dispensary for Women and Children, and Lying-in Institution.
Cheltenham Gen. Hos. and Dis., 42.
Clifton Dispensary.
County Lunatic Asy., Gloucester, 320
Gloucester Dis. and Vaccine Inst.
Gloucester Infirmary, 161.
Stroud Gen. Hos. and Disp., 20.

HAMPSHIRE.
Hants County Hos., Winchester, 120.
Royal Portsmouth, Portsea, and Gosport Hospital, 33.
Royal Isle of Wight Infirm., 24.
Royal South Hants Infirmary, Southampton, 70.

HEREFORDSHIRE.
Hereford General Infirmary, 72.
Leominster Dispensary.
Ross Dispensary.

HERTFORDSHIRE.
Hemel-Hempstead — West Herts Infirmary, 33.
Hertford General Infirmary, 35.
Hitchin.—North Herts and South Beds Infirmary, 30.

HUNTINGDONSHIRE.
Huntingdon County Hospital, 26.

KENT.
Canterbury Dispensary.
Canterbury—Kent and Cant. Hos., 120.
Dover Hospital Disp., 12.
Dreadnought Hospital "Ship," for Seamen, 250.
Folkestone Dispensary.
Gravesend and Milton Dispensary.
Hythe Dispensary.
Kent County Lunatic Asy., 650.
Kent County Ophthalmic Hos., 27.
Maidstone and West Kent Infirmary and Dispensary, 24.
Margate—Royal Sea-Bathing Infir., 200.
Ramsgate and St. Lawrence Disp.
Ramsgate Seamen's Infirm., 20.
Rochester, Chatham, and Strood Dispensary.
Sandgate Dispensary.
Tunbridge-wells Dis. and Infir., 23.

LANCASHIRE.
Bolton Infirmary, 20.
Bury Dispensary.
Chorlton-on-Medlock Dispensary, Manchester.
County Lunatic Asylum, Prestwich, near Manchester, 514.
County Lunatic Asylum, Rainhill, near Prescott, 400.
Lancaster County Lunatic Asylum, 700.
Lancaster General Dispensary and House of Recovery, 40.
Liverpool Dispensaries.
Liverpool Eye and Ear Infirm., 24.
Liverpool Infir. and Lunatic Asy., 226.
Liverpool Infirmary for Children.
Liverpool Lock Hospital, 50.
Liverpool Lying-in Hos. and Dis. for Women and Children, 15.
Liverpool Northern Hosp., 120.
Liverpool—St. Ann's Dis., and Ear and Eye Institution.
Liverpool.—Southern and Toxteth Hospital, 120.
Manchester, Ardwick, and Ancoats Dispensary.
Manchester Eye Hospital, 25.
Manchester General Dispensary for Children.
Manchester Institution for Diseases of the Ear.
Manchester Lock Hospital.
Manchester Royal Infirmary and Dispensary.
Manchester—St. Mary's Hospital.
Manchester—Salford and Pendleton Royal Hospital and Dispensary, 10.
Ormskirk Dispensary.
Preston Dispensary.
Rochdale General Dispensary.
Southport Strangers' Charity, 130
Warrington Dispensary.
Wavertree, Childwall, and Allenton Dispensary.

LEICESTERSHIRE.
Leicester General Dispensary.
Leicester Infirmary, 145.
Loughborough Dispensary, 9.

LINCOLNSHIRE.
Gainsborough Dispensary.
Horncastle Public Dispensary.
Lincoln County Hospital, 97.
Lincoln General Dispensary.
Spalding Dispensary.
Spalding Union Infirmary, 43.
Stamford, Rutland, and Gen. Infir. 32.

NORFOLK.
Norfolk and Norwich Eye Infir., 14.
Norfolk and Norwich Hos., 144.
Norfolk County Lunatic Asy., 300.
Norwich Dis. for Med. cases only.
West Norfolk and Lynn Hos., 52.
Yarmouth Hospital, 28.

NORTHAMPTONSHIRE.
Northampton Gen. Infir., 114.
Northampton General Lunatic Asylum, 250.
Peterborough Infir. and Dis., 20.
Royal Victoria Dispensary.

NORTHUMBERLAND.
Alnwick Infirmary.
Hexham Dispensary.
Newcastle-upon-Tyne Disp.
Newcastle-upon-Tyne Fever Hospital, 45.
Newcastle-upon-Tyne Infirmary, 250.
Newcastle-upon-Tyne Lying-in Hospital.

NOTTINGHAMSHIRE.
Newark-upon-Trent Dis. and Hos., 11.
Nottingham County Lunatic Asylum, 236.
Nottingham Dispensary.
Nottingham General Hos., 122.
Nottingham Unions. and Dis.,oH 128.
Wellow Hospital.

OXFORDSHIRE.
Oxford and Berks County Pauper Lunatic Asylum, 370.
Oxford Medical Dispensary and Lying-in Charity.
Oxford—Radcliffe Infirm., 158.
Warneford Hospital for Insane, 45.

SHROPSHIRE.
Ironbridge Dispensary.
Salop and Montgomery Counties Lunatic Asylum, 300.
Salop Infirmary, 140.
Shrewsbury Dispensary.
Shropshire Eye and Ear Dispens.
South Salop and Bridgnorth In., 10.
Wellington Dispensary.

SOMERSETSHIRE.
Bath Ear and Eye Infirmary.
Bath Eastern Dispensary.
Bath Eye Infirmary, 4.
Bath General Hospital, 127.
Bath United Hospital, 112.
Bath Western Dispensary.
Bridgewater Infirmary, 40.
Cannington Dispensary.
Clevedon, Tickenham, and Walton Dispensary.
Inst. for Diseases of Chest, Bath.
Institution for Idiot and Imbecile Children, 35, Belvidere, Bath.
Somersetshire County Pauper Lunatic Asylum, Wells, 400.
Southern (Lyncombe and Widcombe Dispensary), Bath.
Taunton and Somerset Hospital 82.
Taunton Eye Infirmary, 6.
Wiveliscombe Dispensary, 12.

STAFFORDSHIRE.
North Staffordshire Infirmary, 130
South Staffordshire General Hos., Wolverhampton, 100.
Staffordshire General Infirmary, 120.

SUFFOLK.
East Suffolk and Ipswich Hospital.
Mutford and Lothingland General Dispensary and Infirmary, Lowestoft, 14.
Southwold Dispensary.
Suffolk County Lunatic Asy., 250.
Suffolk Gen. Hos., Bury St. Edmunds, 60.

SURREY.
Asylum for Idiots, Earlswood, near Reigate.
Kingston-on-Thames Dispensary.
Richmond Dispensary.

SUSSEX.
Brighton Dispensary.
Brighton—Sussex County Hos. 124.
Chichester General Infirm., 84.
East Sussex, Hastings, and St. Leonard's Infirmary, 22.
Hastings Dispensary.
Sussex and Brighton Infirmary for Diseases of the Eye, 8.

WARWICKSHIRE.
Birmingham and Midland Counties Lying-in Hos., and Dis. for the Diseases of Women and Children, 13.
Birmingham General Dispensary.
Birmingham General Hospital, 221.
Birmingham — Queen's Hospital, with detached fever wards, 130.
Coventry and Warwickshire Hos., 26.
Coventry Provident Dispensary.
Eye Infirmary, Birmingham, 6.
Leamington, Warneford Hos., 60.
Southam Eye and Ear Infirm., 16.
Stratford-on-Avon Infirmary.
Warwick County Lunatic Asylum, 350.
Warwick Dispensary.

WILTSHIRE.
Devizes Dispensary.
Salisbury General Infirm., 116.

WORCESTERSHIRE.
Dudley Dispensary.
Great Malvern Dispensary.
Kidderminster Infirmary.
Malvern Wells Lying-in Inst.
Stourbridge Dispensary.
Tenbury Dispeusary.
Worcester Dispensary.
Worcester Infirmary, 100.
Worcester Ophthalmic Inst., 3.
Worcestershire Humane Society.

YORKSHIRE.
Beverley Dispensary.
Bradford Iufirmary, 62.
Doncaster Dispensary.
Halifax Infirmary, 30.
Harrogate Bath Hospital, 100.
Huddersfield Infirmary, 40.
Hull General Infirmary, 125.
Knaresborough Dispensary.
Leeds Dispensary.
Leeds Eye and Ear Infirmary, 5.
Leeds General Infirmary, 141.
Leeds Hospital for Women and Children, 12 to 18.
Leeds House of Recovery, 80.
Leyburn Dispensary.
Malton Dispensary.
North and East Riding Lunatic Asylum, Clifton, York, 318.
Northern Sea-bathing Infirmary, Scarboro', 50.
Pontefract General Dispensary.
Ripon Dispensary and House of Recovery, 12.
Rotherham Dispensary.
Scarborough Dispensary.
Sheffield General Infirmary.
Sheffield Public Dispensary.
Stokesley Dispensary.
The Retreat — Quaker's Lunatic Asylum, 114.
Wakefield General Dispensary and Clayton Hospital.
Whitby Public Dispensary.
York County Hospital, 100.
York Dispensary.
York Institution for Diseases of the Ear.
York Lunatic Asylum, 116.

BRECKNOCKSHIRE.
Crickhowell Dispensary.

CARDIGANSHIRE.
Aberystwith Infirmary, 14.

CARMARTHENSHIRE.
Carmarthenshire Infirmary, 20.

CARNARVONSHIRE.
Carnarvonshire and Auglesey Infirmary and Dispensary, 18.

DENBIGHSHIRE.
Denbighshire Infirm. and General Dispensary, 35.
North Wales Asylum for Insaue, 170.
Wrexham Infirm. and General Dis., 30.

FLINTSHIRE.
Flintshire Dispensary, Holywell.

GLAMORGANSHIRE.
Glamorganshire aud Monmouthshire Iufirmary and Dis., Cardiff, 30.
Swansea Infirmary, 26.

MONMOUTHSHIRE.
Abergavenny Gen Dispensary.
Monmouth Disp. & Hos., 5.
Newport Dispensary.

CHANNEL ISLANDS.
Isle of Man Gen. Hos. and Dis.

SURGICAL INSTRUMENT MAKERS.

Marked thus * are Glass Instrument makers
Marked thus ‡ are truss makers.

‡Acret, George Sims, 39, Houudsditch.
‡Ady, Robert Hill, 87, Fenchurch-street.
‡Andrews, A. Surry, 1, Providence-row, Finsbury.
Arnold, James, 35, West Smithfield.
*Ashby, Charles B. 3 Green-terrace, New River-head.
‡Atkinson, Benjamin Frederick, 3, Hemming's-row.
Atkinson, William, 22, St. George's market, Borough.
‡Bailey, William Huntley, 418, Oxford-street.
Barry, Joseph, 74, White Lion-street, Pentonville
Batchelor, A., 55, Perceval-street, Clerkenwell.
Bigg, Henry and Son, 29, Leicester-square, and 9, St. Thomas's-st.
Blackford, William, 2, Durham-street, Strand.
Blackwell, Henry, 104, High Holborn.
Blackwell, William, 3, Bedford-court. Covent-garden.
Blade, E. (*india-rubber*), 6, Princes-street, Finsbury.
Botschan, James, 22, Windmill-street, Finsbury.
Brough, Edward, 48, Aldersgate Street, City.
Brown, George, 15, St. Mary's-square, Lambeth.
Carsberg, George, 8, Meredith-street, Clerkenwell.
Chapman, William Henry, Bridge-house, Caledonian-road.
‡Clark, John, 225, Piccadilly.
‡Clark, John, 225, Piccadilly.
‡Coles, John, 9, Brydges-street, Covent-garden.
‡Coles, William, (*patent*) 3, Charing-cross,
‡Collett, John, 36, Bowling-green-street, Kennington.
‡Colwell, (Mrs. Sarah), 77, Davies-strcet, Berkeley-square.
‡Coxeter, James, 117, Cheapside. and 23, Grafton-street East, Tottenham-court-road.
‡Dabbs, Thomas H., 21½, Blackman-street, Borough.
‡Durroch, W. F., 2, New-street, St. Thomas's-street east, Borough.
Eagland, Edwin Henry, 21, Coventry-street.
‡Egg, Joseph and Co., 1, Piccadilly.
‡Einsle, Edward, 46, St. Martin's-lane.
Ernst, Frederick Gustavus, 28, Great Queen-st., Lincoln's inn fields.
Evans, John, and Co., 12,Old Fish-street, City.
Evrard, Jean, 35, Charles-street, Middlesex Hospital.
‡Ferguson, D., and Sons, 21, Giltspur-st., and 34, West Smithfield.
Finninley, Alfred, 6 Victoria-place, Tyer-street, Lambeth.
‡Fitkin, John, 72, Old-street-road.
Fuller, John, 239, Whitechapel-road.
‡Garrett, John, 38, Wardour-street, Soho.
‡Gracie, George, 11, Marylebone-street, Piccadilly.
Grumbridge, J., (*stethoscope*), 47, Poland-street.
Hall, Joseph and Co., 34, Terrace, Trinity-square, Tower hill.
Harman, Mrs. Cath, 1, Vine-strcet, York-road, Lambeth, and 1, Robert-street, Waterloo-road,
‡Heeps, Mrs. H., 45, Liverpool-street, Bishopsgate.
‡Hughes, Francis and Co., 247, High Holborn.
Huxley, Edward, 8, Old Cavendish-street.
Jack, Wm., 14, Ratcliffe-row, St. Luke's.
‡Jeffs, William, 13, Weymouth-street, New Kent-road.
‡Johnson, Henry Croshaw, 121, Blackfriars-road.
Johnson, Henry Croshaw. 121, Blackfriars-road.
Johnson, William, 30, Charles-street, Hampstead-road.
Jonas, Lavater and Co., 16, Broad-street-buildings, City.
‡Kebble, Henry, 19, Warwick-street, Regent-street.
‡Kinseley Thomas, 10, Upper St. Martin's-lane.
‡Lindsey, Mark, 264, High-street, Borough.
Lings, William, 1, Jewin-street, Aldersgate.
‡Long, Mrs. Mary, 217, High Holborn.
Lorberg, Charles Henry, 5, Brompton-road.
Mabon, John, 16, Meredith-street, Clerkenwell.
M'Lellan, John, 2, Mount-place, and 8, Ebenezer-terrace, Turner-street, Commercial-road east.
Maddox, James Edward, 19, University-street. Tottenham-court-road.
Matthews, Wm., 8, Portugal-st., and 32, Carey-street, Lincoln's inn.
Maw, Solomon, 11, Aldersgate-street, City.
Millikin, John, and Co., 161A, Strand.
Mundy, Wm., 15, Mount-place, Whitechapel.
Munns, William, 28, Great Bland-street, Great Dover-street.
‡Newson, Henry, 18, Percy-street, Tottenham-court-road.
Nicholls, Thomas, 24, Princes-street, Spitalfields.
Nye, George, 38, Cranmer-place, Waterloo-road.
Nye, Samuel, 79, Wardour-street, Soho.
Nyman, Henry, 1, Boundary-row, Blackfriars-road.
‡Ormsby, Mrs. M.A., 22, Middle-row, Holborn.
Paget, Richard, 195, Piccadilly.
Paul, John Adam, 36, Brownlow-street, Drury-lane.
‡Payne, George, 21, Robert-street, Hampstead-road.
‡Pepys and Williams, 22, Poultry, City.
Philp, Whicker, and Blaise, Wilton-road., Pimlico, and 67, St. James's-street.
Pine, Wm. B., (*acoustic*),352, Strand.
Pratt, J. F., 420, Oxford-street.
Pryor, John, 50, Queen-street, New cut, Lambeth.
Pryor, Thomas, 23, King-street, Tower-hill.
Read, Richard, 35, Regent-circus, Piccadilly.
‡Reddall, Cook, 1, Fairfax-court, 400, Strand.
Rein, Frederick Charles, 108, Strand (*acoustic*).
Risley, Charles V. 16, Clerkenwell close.
‡Robinson, Miss S. M., 19, Kingsland Road.
Ruston, Joseph, 31, Nottingham-place, Whitechapel.
‡Salmon, Ody and Co., 292, Strand.
‡Saunders, Thomas, 11, Great St. Andrew-street.
‡Scott, William, 22, Greville-street, Hatton-garden.
Shaw, Martin, 71, New Compton-street, Soho.
‡Sheldrake, Bigg and Co. 29, Leicester-square.
Simpson, Henry, 55, Strand.
‡Spratt, William Henry, 2, Brook-street, Grovenor-square.
Stevens, James, 10, Gower-st north.
Stevens, Robert, 33, Red Lion-street, Clerkenwell.
Stone, Frederick, 6, Greycoat-street, Westminster.
Tappolet, Edward, 29, Jewin-crescent, Cripplegate.
‡Taylor, Thomas, 1, New Union-street, Little Moorfields.
‡Turner, Mrs. E., 36, Great St. Andrew-street, Seven Dials.
Walsh, and Co., 12, Bartholomew-square.
‡Walters, Frederick, 16, Moorgate-street.
Ward, George 7, Providence-place, Kentish-town.
Ward, H. 10, Yates' rent, Clerkenwell.
‡Watkins, William Francis, 76, Freeschool-street.
Weedon, Thomas, 41, Hart-street, Bloomsbury.
‡Weiss, John and Son, 62, Strand.
‡Whicheloe, H. T., 97, Great George-street, Bermondsey.
Whicker, Philip and Blaise, 67, St., James's street, and Wilton-wharf, Wilton-road, Pimlico.
‡White John, 228, Piccadilly.
Whitfield, Mrs. J., 32, Gloster-strcet, Queen's square.
Wood, John, 15, Aske-street, Hoxton.
Wormull, Anth., jun,, 182, Union-street, Borough.
Wright, Henry, 18, London-road, Southwark.
Yates, Robert, 6, Trafalgar-place west, Hackney-road.

TO CORRESPONDENTS.

In order to give all the information peculiar to our "Students' Number" in this week's impression, we are compelled to defer until our next many matters of interest, and also Answers to Numerous Correspondents.

Our best thanks are tendered to the Secretaries and Registrars of the various Medical Colleges and Schools, for their prompt attention to our inquiries.

OPENING OF THE MEDICAL SESSION.

INTRODUCTORY LECTURES.

CHARING-CROSS HOSPITAL.

Dr. Chowne commenced by saying, although it was but two years since that the agreeable duty of addressing the students from that place, and on a similar occasion, devolved upon him, he had now the privilege of again doing so on this the twenty-fourth anniversary since the first introductory address was delivered in the Institution, by Dr. Shearman, the very highly-esteemed Consulting-Physician of the Hospital. Since that period, short as it might seem to those who can mentally glance, even in a few seconds, over the whole retrospect, great changes have been made in regard to the course of study enjoined on candidates for the Medical Profession; and the student of the present day is called upon to give both a longer period of time to his studies, and to embrace in those studies conformity to a more comprehensive curriculum than was heretofore assigned to him, whether the aim of his ambition was to attain the highest University Medical honours, or the diploma or licence of the Royal College of Surgeons, or of the Society of Apothecaries. Although, at a first view, the imposition of an extra duty, to accomplish what might appear to be only the same end, is liable to be regarded as an additional obstacle or difficulty, and, therefore, as an additional evil; yet absolute benefit, instead of evil, is the result to be hoped for from the changes that have been made. If the extra duties imposed were such as to confer no higher final status on the Student; did the longer period of study, and the more comprehensive curriculum, do nothing towards placing him in a better position and on higher ground than that attained by his predecessors, the extra expenditure of time and of toil might lead to discontent, and, indeed, might be regarded as an unprofitable innovation. Happily, however, the advances that have, by judicious gradations, been made to elevate the standard of attainment required, are calculated to elevate the true position both of the individual and of that branch of his Profession to which his aim is directed. Thus—to use a familiar example—in proportion as he is destined to climb a loftier and steeper ascent, he attains as his reward a prouder station, and is made to stand on vantage-ground in relation to others from whom less has been demanded; indeed, young men can scarcely wish themselves a greater evil than a short curriculum, and a facile crowning of the academical course. The Doctor, after remarking upon the sudden transition which the positions of young men undergo when transferred from the society and supervision of their relatives, or friends, or preceptors, as the case may be, to the extreme latitude of free agency which they are left to exercise over their mode of living as Medical Students in this great town,—proceeded to say,—Adverting to the position of those young men who are yet untried, and to the influence of the free agency to which they are consigned, who have grown up in the practice of good conduct, who have carefully fostered the growth of good principles, and who rely upon an internal feeling that they shall remain stedfast and firm in the fulfilment of good intentions and good resolutions, they cannot too soon know, that even these intentions and resolutions are liable to betray them. In the sanctity of home these habits may have engaged the watchfulness and care of others, as well as of themselves; and they are too probably unprepared for the stealthy influence of example. A wise maxim in moral philosophy says, We are prone to take the tone of our society; it is to the tone of our society that we often yield, almost unconsciously, point by point, and scruple after scruple, even in questions of principles and rules of conduct, and imperceptibly make concessions to example, where neither solicitation nor argument would avail. It is, therefore, of the utmost importance, that the student should exercise prudent discrimination in the choice of his companions, and, as a first precaution, it might be desirable that he should defer his selection. With a view to removing the difficulties which young men labour under on their coming to town, in the choice of a residence, arrangements have been made in connexion with this Institution, with gentlemen of our Profession, and with others who will receive our pupils into their houses, an arrangement by which the risks of their falling into the hands of persons who have merely mercenary objects, and who are heedless of the habits of their inmates, are avoided. The Doctor, after directing the attention of the Students to some of the important points connected with the study of different branches of Medical science, as Anatomy, Physiology, Chemistry, and the other subjects enjoined in the *curricula* of the different authorizing bodies, proceeded to recommend the earliest possible devotion of the Student's attention to the work before him, and a steady continuance of that devotion, observing that there will be a time for work and a time for recreation; let him work hard and constantly during the session; let him take holiday during the interval. The duties of the session demand from the Student so thorough a fixing of his mind upon his subject, that he must sedulously avoid every unnecessary interruption to the trains of thought, and to the mental efforts that are required, to establish firmly in his mind the lessons he from day to day will receive. He will find it more easy to *persist* in the mental applications which his task demands, than to return to it, should he too freely allow his attention to be withdrawn and diverted to other subjects. He will do well, indeed, to regard every hour unprofitably spent as weakening his claim to success, and his chance of obtaining it, on the approaching day, when his attainments must be submitted to searching examinations. The address was concluded by an encouraging assurance that, formidable as the course of Medical education might seem to those now newly encountering the stern aspect of their duties, the attainment of entire and, indeed, even triumphant success is entirely within their reach, requiring only methodical arrangements of their days' avocations,—giving to every part of the day's occupation its proper degree of attention, gathering into his note-book, from all the sources which the various classes will afford, information pertaining to the objects of which he is in pursuit, and employing his evening in reviewing and making himself master of what each day has produced.

GROSVENOR-PLACE SCHOOL OF MEDICINE,

ADJOINING ST. GEORGE'S HOSPITAL.

The Introductory Lecture at this School was delivered on Wednesday, at half-past two, by Mr. Spencer Wells, one of the Lecturers on Surgery, who divided his lecture into two parts. In the first he gave a short review of occurrences interesting to our Profession, which had taken place since he had left his chair for service in the Eastern Hospitals; and in the second he gave an historical account of the Grosvenor-place School, with biographical notices of some of its most distinguished pupils, and explained the method of teaching adopted by himself and his colleagues. He then commenced by a description of the Eastern Hospitals at the commencement and close of the late war, contending that all the faults for which the Medical Officers of the Army had been blamed should have been attributed to those in command, who treated all Medical advice with neglect, until aroused by the awful results of their error. He argued that, as the Army had been brought into the highest possible state of health and efficiency, when the advice of the Medical Department was attended to, no Minister-at-War or Commander-in-Chief could ever again refuse to follow the advice of the heads of the Department in any matter affecting the health of the soldier. The lecturer then gave an account of the working of the system of lady-nurses in the East, and expressed his hope that the experience gained in our Military Hospitals would not be lost at home, but would lead to a great and fundamental reform in the nursing system of our English Hospitals. On reviewing the subjects in which Medical science and art had made advances during the past two years, Mr. Wells alluded to the great importance to the nation of the recent appointments of District Medical Officers of Health, and gave a full account of Dr. Richardson's recent discovery of the cause of the coagulation of the blood, insisting strongly upon the important practical results of this discovery. He then exhibited a number of new or modified Surgical instruments, and explained their use. Among them was a very ingenious modification of the *serre fine* for sutures—a new form of sound for opening the nasal duct from below with great ease and certainty—a very light, simple, and effectual india-rubber pessary—some of the most recent improvements in the

ophthalmoscope, a new mouth speculum to facilitate operations on the tonsils or fauces, a simple contrivance for applying causties to piles—a very ingenious needle for plastic operations—a syringe by which perchloride of iron could be injected with extreme accuracy, drop by drop—and Dr. Arnott's instrument for the fluid dilatation of stricture. He also showed a new salt, the nitrate ef uranium, which he said was of great use in dilute solution as a pure astringent, and especially useful as an injection in gonorrhœa. He then exhibited the ecraseur of M. Chapaignac, and showed how it divided the tissues of the body without occasioning hæmorrhage, giving the results of his own observations of the use of the instrument, and expressing his opinion that in the removal of piles, polypi, and some erectile tumours and malignant growths, it would prove of essential service to the Surgeon. In the second part of his lecture Mr. Wells gave an historical account of the Grosvenor-place School since its foundation in 1830, with some account of many of its students who had distinguished themselves in after life. He then alluded to the mode of teaching adopted in the school, contending that Medical teaching was in general too professorial. He said:—"You are aware that in our Universities the students are taught by college tutors and by university professors. The professor expounds to his hearers the doctrines of the best authors on the subject under consideration, adding his own comments, in the form of a read or extempore lecture. The only part the student has to perform is to listen, to take notes of what he hears, to reflect upon it, and endeavour to remember what he thus learns. He takes no active part in the scene. He is not required to prove that he has understood what he has heard, or to show that he could apply the knowledge he has acquired in a practical manner. Mere Professorial addresses, even when the lecturer is able and the matter good, have, consequently, but very little attraction for students; indeed, so little, that it has been found almost universally impossible to keep a voluntary class together, and the apparatus of roll-calls and certificates has become necessary. I do not say that such formal lectures do *no* good, but they do little or no more than the reading a good book on the subject treated; and if they do good, it is to the men of active, ambitious minds who would distinguish themselves under any system. The only influence they exercise upon the dull or idle is to make them still more dull, and to give them an excuse for idleness. Yet this has been the ordinary mode of teaching Medical Students have been subjected to. The natural consequence has been, that a host of private tutors have sprung up to supply what was a real and natural want. They adopted the tutorial system of our Colleges. According to this system, the student is not a mere listener; he becomes an actor. He translates a Greek or Latin book, proves a proposition, or solves an equation, under the eye of his tutor, or answers questions testing his knowledge. He must not only receive knowledge, he must prove that he has done so. He must show, not only that he is full, but that he is precise and ready. Had our private tutors really worked this system well, they would have become great public benefactors. Unfortunately, they abused it. Their teaching was directed to mere preparation for a compulsory examination. It became of little importance whether the student were really well-informed, if he could only make it appear that he were so to his examiners. The knowledge acquired for mere examination may strengthen the memory, but it does not strengthen the general powers of the mind. The student is satisfied, without clearing away difficulties he finds in his own mind, if he can only satisfy his examiners. He wishes to express himself clearly, and is content if he can do so, even although he cannot see clearly. He does not acquire sound reasoning habits. What he learns by rote is soon forgotten. He neglects useful pursuits in order to study subjects immediately connected with his examination. He is a soldier trained for the review, not for the battle; and even if he pass muster, the temporary effort of the mind is followed by apathy and forgetfulness. I do not acquit our Examining Boards of all blame in this matter. They have neglected to test the knowledge of candidates practically. The University of London and the East India Board have done much to repair this error; and their experience has shown how great it has been. Out of forty-five candidates at one examination, only three could plug the nostrils; not half could apply a bandage. Yet these are men who had passed our halls and colleges with credit. No wonder, then, that the grinding gentlemen can boast that they can pass a man in three months who does not know an artery from a vein. But think what a wretched being such a man will be when he comes to tamper with the lives of his fellow-creatures. His diagrams and his tables are useless at the bedside. He has none of the practical knowledge it is our aim to impart when we endeavour to attain all the advantages of the pure tutorial system. Now, the great characteristic of this system is the prominence given to teaching by interrogation, not by inducing the Student to commit to memory answers to a series of questions—this is the abuse of the system, which leads to the evils I have just pointed out—but, by setting a problem before the pupil, and, instead of solving it for him, questioning him until he searches for himself, and the latent powers of his mind becoming developed, he discovers its solution. Let me illustrate what I mean by a specimen of the teaching of Plato. In his dialogue, the Meno, Socrates calls up one of Meno's attendants, and, drawing a diagram on the sand, proceeds to question the boy, telling Meno to mark well whether the lad is told anything, or whether he appears to find the truth in his own mind, and contending that, in a man who is ignorant, there exist true opinions concerning those very things of which he is ignorant. I must abridge the dialogue, and I may substitute this diagram for the lines drawn by Socrates in the sand. Socrates begins thus:—Tell me, boy, do you know that

this four-sided figure is a square? *Boy.*—Yes. *Soc.*—Are these four lines, its sides, of equal length? *Boy.*—Yes. *Soc.*—Are these other two lines, drawn across the middle, equal? *Boy.*—Yes. *Soc.*—May there be a larger or smaller square than this? *Boy.*—Yes. *Soc.*—May there be one twice as large? *Boy.*—Certainly. *Soc.*—How long would one side be of a square twice as large as this? *Boy.*—Twice as long. Now, says Socrates, you see I teach him nothing; I only question him, and now he thinks he knows. But does he? Certainly not, says Meno, and Socrates proceeds to question until the boy sees his error. He adds a square of the same size as the first, making the side twice as long. The boy sees that the figure is long one way and narrow another, and acknowledges that it is not a square. Socrates then adds two other squares of the same size as the first, the sides being, of course, twice as long as those of the first, and asks, How many times is this square greater than the first? *Boy.*—Four times. *Soc.*—Not twice as great as you said? *Boy.*—No; four times. *Soc.*—Well, but how long must the side be that the square upon it may be twice as great as the first square? *Boy.*—I do not know. Now, says Socrates, observe how this boy is proceeding. At first he did not know but fancied he knew. He then answered boldly. But he now deems himself at a loss, and, as he does not know, does not even think he knows. Is he not in a better state now as regards the matter of which he was ignorant. We have at least made some progress, for now, knowing nothing, he would willingly search. Now mark, after this difficulty, he will discover by searching with me. I do not teach; I only ask questions. Watch me and see if I teach or tell him anything, or do more than ask him his own opinions; and tell me if he gives an opinion in his answers that is not his

own. *Soc.*—If we draw a line across this first square, from corner to corner, does it cut the square into two equal parts? *Boy.*—Yes. *Soc.*—And if in this square, made up of four of the first squares, we draw the four lines, will each of these lines cut one of the squares into two halves? *Boy.*—Yes. *Soc.*—And will these four lines be equal, and make a new square? *Boy.*—Yes. *Soc.*—Then is this square made up of the four halves of the four squares? *Boy.*—It is. *Soc.*—And of how many halves was the first square made up? *Boy.*—Of two. *Soc.*—And how much is four greater than two? *Boy.*—The double. *Soc.*—Then how much is the new square greater than the first square? *Boy.*—It is the double of it. *Soc.*—Then have you got a square twice the size of the first square? *Boy.*—Yes. *Soc.*—And how do you find the length of one side? *Boy.*—By drawing a line from corner to corner of the original square. You see, Socrates says, "he really knew all this before. I told him nothing. He found the truth in his own mind. Those who do not know have still in their minds a latent knowledge." It is the aim of the tutorial system, gentlemen, to call forth the latent powers of the mind, to make the pupil search for the truth, and discover it for himself, to point out his errors, and to put him into the way of avoiding them, to show him where he is

ignorant, and how he may acquire knowledge. Depend upon it that knowledge thus acquired is solid and certain. The mind does not become a mere storehouse, but the reflective powers are strengthened, and the student is enabled to speak and act well and efficiently, and meet manfully the difficulties he must encounter in his course through life." After showing how the different teachers carried their opinions into practice, Mr. Wells strongly advised the pupils to contend for the prizes offered in each class, assuring them that those who are eminent among their College compeers, are those who are eminent afterwards among their brother practitioners, but urging them, while rivals, still to be friends, and giving various instances from the biographies of eminent physicians, to prove that success and happiness could be best assured by a friendly competition.

The theatre was filled by students, and by many of the Medical practitioners and clergy of the district, and the lecturer was greeted by the frequent applause of his audience.

ST. GEORGE'S HOSPITAL.

The Introductory Lecture at this School was delivered at 2 o'clock by Dr. Lee, F.R.S. After some general observations upon the changes which had been wrought in science and in politics during the present century, the Lecturer offered the following practical remarks upon the course of study which the Medical pupil ought to pursue :—First, I would not remain in bed till past 9 o'clock, while the Lectures are being delivered in this Hospital, and come sneaking in to the back benches of the Theatre when the lecture is more than half over. I would form a resolution not to be shaken by anything but bodily illness to be present at every lecture delivered in this Hospital during the Session, and I would take down in writing, for the purpose of fixing the attention, the principal facts stated by the different teachers. Secondly, I would resolve to dissect every part of the human body with the utmost care, not once, but many times, until I had become an expert practical anatomist, and had acquired an accurate knowledge of all the viscera, all the great muscles of the body, the ligaments and the fasciæ, and the situation and course of all the great blood-vessels and nerves. I would examine with the deepest attention all the parts of the body where surgical operations might require to be performed ; all the parts concerned in hernia, lithotomy, aneurism ; the cervical, axillary, and inguinal regions, more especially, and all my dissections would be conducted with reference to the human body. I should do all this as a student, and I would take care that the important knowledge thus acquired should form the foundation of my future success in my profession, whether as Physician, Accoucheur, or Surgeon, or in all these capacities. I would constantly keep in mind the fact, that from the immortal Harvey to the present hour, no solid, enduring reputation has ever been reared upon any other foundation. Thirdly, in the Pathological Theatre I would endeavour to acquire a complete knowledge of all the changes of structure which are produced by disease in the human body, medical or surgical, in the brain, spinal cord, organs of respiration and circulation, and digestion ; in the liver, spleen, kidneys, and bladders ; I would likewise endeavour to connect the changes with the symptoms which had been observed during life in the wards of the Hospital. Fourthly, after acquiring a complete knowledge of the elements of Chemistry, Anatomy, Midwifery, during the first year of my studies, the dissecting rooms, the Pathological Theatre, and the wards of the Hospital would soon form the principal fields for my exertions; and I would do more than walk the Hospital, to use an expression in daily use, I would select for special observation some of the more striking and important cases. I would endeavour to seize the leading symptoms, take accurate written histories of them, mark the effect of remedies, reflect often and deeply upon them, explain the symptoms, if possible, and when death took place, put the diagnosis and the treatment to the most severe tests. The record of such cases I would carefully preserve, frequently peruse, and compare them with other cases that came under my notice. When the course of my studies had been completed, I would steadfastly continue through life the practice of recording with rigid accuracy all the most important cases of Medicine, Surgery, and Midwifery, that came under my notice; and if, in the progress of time, any of these cases should be deemed worthy of publication, I would take care that the unfortunate cases as well as those that terminated favourably should be recorded. The whole truth, and nothing but the truth, should be told, having an unshaken faith that however truth may be opposed by envy and malevolence, it would finally triumph. Lastly, I would arrange my studies in a methodical manner, so as to command leisure for that recreation which is so necessary to the health of the body and the mind, and I would endeavour to retain and increase all the knowledge I had previously acquired of Classics, Mathematics, and Literature, not knowing but that in the progress of life, I might in the practice of my Profession, be called upon to associate with those among whom general knowledge would be required to support the dignity of the English Physician. Little more than a century has elapsed since St. George's Hospital was founded, and few institutions have contributed more powerfully to the advancement of Medical science. Omitting the names of many distinguished Physicians who have proceeded from this Hospital, there are three individuals than whom none greater have appeared "since medicine was first esteemed an useful and honoured science." I allude to William and John Hunter, and Edward Jenner. William Hunter came to St. George's in 1741, and it was here, attending the sick and dissecting the dead, that he discovered the direct road for becoming great in his Profession. He lectured for nearly forty years, and established the celebrated school in Windmill-street, from which emanated St. George's Hospital. He drudged, like Selden, days and nights, and grappled with and conquered all the difficulties which opposed his progress, and would have overwhelmed less resolute minds. He knew that knowledge could only be acquired by labour, and that labour was the only price of solid fame. Zealously and steadfastly he pursued the object he had in view, and set an example of vigorous, patient, laborious industry, which all must follow who are eager to attain legitimately the higher rank and honours in the Medical Profession, and, what is of infinitely greater consequence, and a still higher object of ambition, who would possess the power to relieve the diseases, and save the lives, of their fellow-creatures. In advanced life he did not think of number one, but continued to deliver lectures, though attended with pecuniary loss, because he considered it his duty. When about to close his earthly career his mind still recurred to that occupation which he had regarded as the most important and delightful of his life. "I wish now," he said—"that I had strength to bear being carried into the theatre, that I might tell my pupils how much happiness and comfort I feel." When on the brink of dissolution he said, "If I had strength enough to hold a pen I would write how easy and pleasant it is to die." From an examination of the "old pupil book" of the Hospital, it appears that the appointment of John Hunter as House-Surgeon took place in May, 1756, just a century ago. He had come to London to his brother, and having speedily distinguished himself as a dissector, presided in the dissecting rooms of William Hunter in 1749, in 1755 was admitted as a partner to the Anatomical Lectures, and in the following year became House-Surgeon. I will now give a short account of the life of Edward Jenner. It is universally known that he came from Berkeley, in Gloucestershire, and after living in the house of John Hunter and under him, he settled in his native place as a practitioner. The name of Edward Jenner appears among the entries of pupils in October, 1770, and it is a remarkable circumstance, that this is known to have been the precise year when Jenner communicated to John Hunter the facts which he had long become acquainted with concerning natural vaccination as the means of protecting the human body from the small-pox. Dr. Lee concluded a most eloquent lecture by alluding to the intellectual glory these great men had shed on the history of their country, amid the loud applause of his audience.

In the evening, the friends and old pupils of St. George's Hospital dined together at Willis's Rooms, the Thatched House Tavern, which was originally selected, not having a room large enough to accommodate the numerous company. The chair was occupied by Sir Benjamin Brodie, who fulfilled most admirably the duties of the evening. Nearly a hundred gentlemen sat down to dinner, and among the company and the visitors were the Lord Chief Baron, Colonel Brownrigg, Sir James Eyre, Dr. Locock, Dr. Conolly, Mr. Ranald Martin, Mr. Cæsar Hawkins, Dr. Sutherland, Dr. Chambers, Mr. Tegart, Mr. Fuller, Dr. Barclay, Dr. Snow, Dr. Fuller, Mr. Nussey, Mr. Gray, Mr. Pollock, Mr. Savory, Mr. Merri-

man, Dr. Semple, Mr. Julius, Dr. C. J. B. Aldis, Dr. Ogle, Mr. Athol Johnson, etc. etc. The Lord Chief Baron returned thanks, in an eloquent and humorous speech, for the Governors of the Hospital; and Colonel Brownrigg, in returning thanks for the Army and Navy, paid a graceful compliment to the arduous services of the Medical Officers of the Army in the late campaign, during the whole of which Colonel Brownrigg had been engaged. Sir Benjamin Brodie, in responding to his health given by the Lord Chief Baron, spoke of the great opportunities afforded him in the wards of St. George's, and of the advantage which he derived from the presence of the pupils, whose questions often suggested new trains of inquiry for his own meditations. He contrasted, in this respect, the hospitals of Austrian Italy with those of our own country; for in the former the pupils are not allowed to attend the practice of the Hospitals, and the duties of the Surgeons are consequently performed in a languid and irregular manner. The proceedings of the evening gave great satisfaction, and a general wish was expressed that such *réunions* might be repeated in future years.

GUY'S HOSPITAL.

The Introductory Lecture at this Hospital was delivered by Mr. Thomas Bell, F.R.S., President of the Linnæan Society, and Professor of Comparative Anatomy at the Medical School of Guy's. The subject selected by Mr. Bell as the text of his discourse was the necessity that all minds, actively employed in the practice of professions or other engrossing occupations, should cultivate some intellectual pursuit non-professional, or not associated with their daily business, as a refreshing change after laborious exertions, and a rescue from the *ennui* that would otherwise attend unoccupied leisure. In support of this proposition Mr. Bell first adduced instances where the absence of such cultivated pursuits had been followed by the most melancholy consequences in those who, by the successful prosecution of their worldly occupations, had amassed fortunes, and had hoped to enjoy the leisure of retirement; and, on the other hand, enumerated numerous examples in all the professions, and among merchants and others, in which, by the employment of leisure, they had cultivated literature, or science, or art, and in many cases not only to their own gratification, but to the benefit of intellectual society at large, and that, too, without in any way interfering with the more serious occupations of life. In illustration of the first point we will quote one of the examples adduced:—"Even with persons of education, and occupied with a profession partaking so much of the intellectual as ours, the mind requires something to fall back upon, when resting from the labours of life. I will mention one anecdote illustrative of this phase of the subject:—One of the most distinguished members of the Medical Profession that this or any other country ever produced, tried the experiment of retiring from practice. He had health, wealth, society, a fine estate, and every material means of enjoyment; but his heart was wholly and only in his profession: it had been the end and aim of his whole life, and he had failed to secure any other source of intellectual happiness when that excitement was at an end. A friend of mine happening to call upon him very shortly after he had taken up what he intended to be his final residence on his estate, was shown his house, his garden, his stables, his fields, and, at the end of his survey, my friend addressed him in these terms:—'Well, you have now in your possession every means of earthly happiness. Your life has been spent hitherto in the honourable and successful practice of your profession, and you retire at an age still capable of much enjoyment, with the respect of the world, a sound constitution, an ample fortune, a fine estate, and every other earthly blessing—you must, indeed, be a happy man.' 'My dear Sir,' was his reply, 'do you see that tree standing on that rising ground? Well, that tree stands in the middle of my estate. I have been here just four weeks, and I have been twenty-eight times tempted to hang myself on that tree.' The result will be anticipated. This eminent person found the sudden cessation of his former laborious occupation a source of incessant and irremediable *ennui;* and after trying change of scene and other equally futile expedients to kill time, he returned to practice, and literally fulfilled his prophecy, contained in a letter to myself, still in my possession, that he should 'die in harness.'"

In a subsequent portion of his lecture, Mr. Bell remarked, "I have said, that there is no profession the members of which may not avail themselves of the benefit of extra-professional study. Clergymen, statesmen, lawyers, physicians, merchants, naval and military men, all afford examples of its practicability;" and, in illustration of this, he proceeded to notice the literary and scientific achievements of many eminent men, who have been ornaments of their own professions, and, at the same time, have adorned and added to the literature and science of their age. The Rev. Mr. Kirby the accomplished entomologist, Gilbert White, Bishop Stanley, Professor Henslow, Lord Bacon himself, Mr. Grove, Sir Frederick Pollock, "Brougham, the inimitable Brougham," Sir Walter Scott, Grote the historian, Sharp, Lister, Gassiot, Yarrell; and, among the members of our own, the Medical Profession, Dr. Mason Good, Dr. Babington the elder, Sir Benjamin Brodie, Linnæus, De Jussieu, the Decandolles, Geoffroy St. Hilaire, Robert Brown, the Hookers, Edward Forbes, Goodsir, Busk, Owen. From this goodly array of great names, Mr. Bell abundantly established his position that extra-professional pursuits are not only not incompatible with professional and business success, but that they often add a lustre to them. After forcibly urging that non-professional pursuits, and pursuits of relaxation, should always be subservient and secondary to the profession itself—should always be kept in the background, and have no preoccupation of the mind during times of business employment, Mr. Bell concluded his lecture in the following words:—"And let it not be supposed that such a prudent pursuit of science will interfere with your professional success; that, if you are always ready at your duties, always punctual to your appointments, always thoughtful and absorbed in the cases to which you are called, always making the well-doing of your patients the obvious and anxious subject of your consideration, your proficiency in scientific knowledge, and the devotion of your leisure to its acquisition or enjoyment will ever interfere with your Professional success, or diminish the confidence reposed in your judgment. I have mentioned to you many cases which point strongly to the truth of this position. I need not recapitulate them. I know that it requires a certain amount of courage and independence, of bold disregard to the prejudices of the world, an abnegation of that selfish timidity which often leads to the resignation of even the most worthy designs from the fear of injuring our worldly interests; these fears I am confident are in the main unfounded; but even admitting that there are some persons so obtuse as not to be able to distinguish between making the collateral pursuits primary or subsidiary, it requires but a firm and consistent, and modest perseverance in the right path to silence detraction and to remove distrust. But I will go still further, and venture to assert that, in many instances, the acquirements to which I refer have been the means of promoting rather than impeding even professional success. The instances are not few in which a general character for intelligence, and the possession of scientific knowledge, first acquired only as a means of relaxation, have led to important worldly advantages. I will not, however, dwell upon this point, as I am anxious to impress upon you higher and more unselfish motives. Those motives are to be found in the advantages which I have already held out to you—the relief and solace of your daily labours, a tranquillizing and elevating resource in the intervals of occupation, a treasure of inexhaustible enjoyment in future retirement; and its results, a cheerful and a peaceful old age, the augmentation of the general mass of human happiness, and the promotion of His glory to whom you owe the possession of so great a blessing." Mr. Bell's lecture was numerously attended, and was listened to with the greatest attention.

KING'S COLLEGE.

Professor Henfrey delivered the introductory lecture at this School, but we had not received our report of his address at the time of going to press.

LONDON HOSPITAL.

Professor Bentley delivered a suggestive and interesting introductory lecture at this college. The first topic of general interest to which the learned gentleman alluded was Medical Reform, the necessity of which, he said, was sufficiently

proved by the demand for it having arisen in all quarters, though he believed that the great reform must commence with the Medical Profession itself. The great difficulty under which they laboured was that of having but few of their number placed in such positions as would enable them to advocate their rights and defend their interests. While thus alluding to Medical Reform, he could not forbear making some observations on one of the Medical corporate bodies, which, to his mind, appeared to have been most unjustly dealt with in the recently proposed Bill—he referred to the Company of Apothecaries. In the first Medical Bill that was introduced last session in Parliament, it was proposed to sweep away the powers of the Apothecaries' Company as an examining body. He called upon the Medical Profession to hesitate before they gave their sanction to any scheme of Medical Reform which thus proposed to do away with an old and well-tried examining body. The Company of Apothecaries had done more for the extension of Medical education than any other corporate body with the same means, or even greater; and even but lately it had endeavoured to extend still further the education of its Licentiates, by demanding a preliminary examination in classics and mathematics. Of the ordinary professional examinations there was none so much dreaded by the medical student as that at Apothecaries' Hall. Reform was no doubt required in the Apothecaries' Company, but less than in other Medical boards. It required reform in the present system of apprenticeships; for, as now carried on, the system was nothing but a species of servitude, alike injurious to the young students of medicine, as altogether unsuited to the present condition of the Medical Profession. Another change for the better would be the relinquishing the dispensing practice, and consequent charges for medicine; the system as now pursued being alike lowering to the Profession and injurious to the community at large. While thus pointing out to the Company of Apothecaries certain changes which, to his mind, would be attended with the happiest results, the lecturer also respectfully urged upon the other Medical corporations of the country the necessity of adapting themselves more completely to the wants of the age. In addressing himself to the students who were about to commence their education in that medical school, he congratulated them on having entered the Medical Profession at a favourable period, there being at present every prospect of success for all, provided only they would do their best to obtain it. One of the advantages now enjoyed by the members of the Medical Profession over those of former years was the formation of new appointments, such as the medical officers of health, and the Medical appointments of the East India Company. Being thrown open to competition, and being well managed, safe and lucrative, such a service as the Medical department in the East India Company he would recommend particularly to those who had no particular prospects of success in this country. He hoped soon to see those appointments competed for more strenuously, and by (to a certain extent) a better class of men; for he had opportunities of knowing, that great disappointment had arisen in high quarters at the result, up to the present time, of the experiment of throwing those appointments open to competition; but the evil had arisen, he thought, in making such a change too hastily. He believed it would have been better at first to have limited the number of those to be admitted by examination to, say, one-half those required, and reserved the remainder (as formerly) in the hands of the Directors. By such a proceeding, probably much more successful results would have accrued, as the Company would have thus obtained the services of some of the best educated students from our schools; whilst, as the same time, they would have had the opportunity of appointing those who were connected with old Indian officers, or whose associations from childhood had been bound up with India. One circumstance connected with the medical department of the East India Company he would especially wish to see reformed, and that was that it should be presided over by at least one director. He could not but believe that the appointment of such a director would be attended with the best results. The remainder of the lecture was devoted to the general nature of the studies that medical pupils pursue, and concluded with some very wholesome advice to them to do their duty in this life in such a manner as to prepare them for a higher and a better one hereafter.

MIDDLESEX HOSPITAL.

The introductory lecture in this School was delivered by Mr. Campbell De Morgan. The object of his lecture was to point out to the student his duties and responsibilities, and to make him aware of some of the special temptations and difficulties which he has to encounter. After expressing thanks to the Governors of the Hospital for their constant interest in the school, and making some general remarks on the necessity for the student working honestly and diligently at all the subjects enjoined in the curriculum, especial attention was drawn to the benefit he would derive from studying, with reference to his own mental improvement, as well as the acquisition of Professional knowledge. The distinction between mere teaching and education was pointed out, and the advantages of a complete exhaustive study of any of the subjects of an academic education as a means of mental training were strongly urged. In the absence—as, under the present system of education, is too often the case—of such a form of education among Medical Students, they were recommended to make the subjects they were about to study, so far as possible, stand in the place of more scholastic pursuits, and to use them as a means of vigorous mental training. But the learning of his Profession was to be the Student's first object; and here the common neglect of proper clinical observations, on their part, was strongly animadverted on. One great cause of this, the Lecturer believed to be the want of that power of analysis, and of independent thought and observation, which it was the province of proper education to give; that the Student, from the absence of previous education, and from the dependence of mind which the system of exclusive teaching by lectures encouraged, was led to lean always on others, and hence to neglect the opportunities which he had of observing and comparing and investigating for himself—and at the same time, of training his senses. In speaking of the necessity for proper clinical study he remarked, "All important as is clinical observation, it is a matter of great regret that the attendance of Students is not insisted on during the third summer session; so that, in fact, though I have named three years as the time of their pupilage, it is, in reality, limited to two years and a-half. These last six months appear to me very precious, far too precious to be lightly abandoned. For the Student is now no longer distracted by attendance on lectures, he is so advanced as to be able to profit in full by bedside observation, and would have time to devote himself exclusively to it. What the student gains by the concession is of little consequence to him in point of time, what he loses in point of opportunity for sound useful study is incalculable." A considerable part of the lecture was occupied in pointing out to the Student the peculiar temptations which he had to resist. The Student, freed from all restraint of school and parental authority, was forced by regulations to be in London during his pupilage, without any check upon him but the mere necessity to go to his Lectures. He soon learns that, provided he attends with sufficient regularity he must have his certificates, and that it is of no consequence, so far, whether he really works or not. He sees men whom he knows to have been more idle and ignorant than himself obtaining their diploma or licence—after a few months' grinding—and unless his own principles and sense of duty are strong, he his led away by any temptation, into idleness. "But, the blame does not rest entirely with those who thus succumb to temptation. I maintain boldly, that they are to a great extent the victims of a vicious system, a system than which nothing better could be devised for ensuring the evils under consideration." And further on, "the position I maintain then is this, if the examining boards demand peremptorily a three years' residence from young men, the majority of whom, it must be believed, if experience and a knowledge of human nature are to be trusted, would, as a matter of choice, rather not fatigue themselves with work—they should, if it be possible, take care, for their own sakes—for the sake of the student—for the sake of the Profession—and for the sake of the public, that those years are properly and profitably employed." Admitting that possibly no regulations could be framed which would force a thoroughly idle student to work—the lecturer objected to the present system, because it afforded no check to idleness in those whose wish it is, in the first instance, to work, and who would easily be kept in the right path, had they only the certainty that their progress would be stopped and their certificates withheld if

they could not give evidence, from time to time, that the present moment was not mis-spent. "The notion may, perhaps, cross the minds of some, that, provided the amount of knowledge which is thought sufficient by the Court of Examiners be acquired, it is of little consequence whether it be gained now and in the school, or hereafter under the grinding system. It is against this most grave error that I wish particularly to guard you. It is a rock on which many before you have split, but which I hope you may be able to avoid. Consider well your real object, and decide at once how to attain it. If the passing of an examination, and the consequent diploma be your final object, beyond which you have no aim, then by all means take whatever you may think the shortest and easiest road to it; but let me beg of you not to come here to fill up your waste time. You will do us no credit, and you will be very much in the way of those who have other views. But this is not your object. I am sure that it is the wish of all to learn their Profession, and to qualify themselves to practise it—not legally only—but conscientiously. To this there is no short cut, no royal road. What you learn must form part and parcel as it were of your own minds—must be the subject of frequent and patient reflection—must be regarded in various lights—must be gone over again and again—to be firmly rooted and durable, the tree must be of slow growth and must be planted too in fitting soil. But what root, think you, would a mass of information take, crammed into a mind little prepared by previous culture and under the pressure and anxiety of an impending examination, with no time for thought, and with the feeling that everything must be taken just as it comes to hand? I will tell you, gentlemen. It would remain just so long as the pressure was on; and, the examination once over, it would escape much more rapidly than it got in. It would leave you, decorated with a diploma, and with your profession yet to learn." The lecturer insisted that the great remedy, and which would stand in the place of Medical Reform, is good preliminary education and frequent examination. The lecturer concluded with some advice as to the importance of a right use of the hours of recreation, so employing them as to refine and elevate the character, not debase it; and in showing how much the position of the Profession in public estimation depended on the tone and education of the individual members. It was listened to with great attention by a numerous audience, and the lecturer received repeated marks of their approbation.

ST. BARTHOLOMEW'S HOSPITAL.

This school was opened on Wednesday. The teachers and their friends dined together at five o'clock in the hall, and at seven the introductory lecture was delivered by Mr. McWhinnie. The theatre was densely crowded, and the lecturer was repeatedly greeted by the applause of his hearers. He enlarged on the future prospects of Medical Students, and delineated the character best calculated to secure a successful professional career—showing that a life of thought must be combined with a life of action, and that clear and definite perception is the parent of executive ability. He alluded to the comparative social standing of the three learned professions, contending, that the advantage possessed by the clergy and lawyers over us, has to be attributed to their preliminary mental instruction, and that the logical was of more importance than the mathematical element in the preliminary education of members of our profession. After an eloquent exordium on the noble character of Medical science, an acknowledgment of the just services of the Army Medical Department in the late war, a recognition of the improved position of naval surgeons, and an allusion to the military honours now conferred upon the Medical officers of the two services, Mr. McWhinnie concluded an extremely able address by pointing out to the students the advantages offered to them at St. Bartholomew's as a school of Medicine and Surgery. A very interesting conversazione, numerously attended, was afterwards held in the Great Hall.

ST. MARY'S HOSPITAL.

Dr. Chambers delivered the introductory address at this school. He examined the primary leading ideas of the arts of healing, showing the fallacies of the empirical system, and the necessity of firm faith on the part of the practitioner. The lecture contained a vast amount of sound practical information and advice; but, as it will be published at the request of hi hearers, we shall defer our notice of it until another opportunity.

UNIVERSITY COLLEGE.

The introductory lecture at this College was delivered by Dr. Parkes at 3 o'clock before a numerous audience, who filled the large lecture theatre of the institution. Among the Professors, were Drs. Walshe, Jenner (Dean of the Faculty), Grant, Sharpey, Williamson, Messrs. Quain, Erichsen, and Ellisl Dr. Mouatt, C.B., who has just returned from service in the Crimea, and who was a student of the College, sat amomg the professors and visitors. The subject was, "Self-training by the Medical Student." The importance of the period on which the Student was entering, and the responsibility which now rested upon him, since the College mode of tuition is not compulsory like that of the School, introduced the subject, which was divided into three parts, the training of the intellect, of the moral faculties, and of the body. The necessity of exercising, in the first instance, the power of attention and of memory, the later and careful cultivation of the higher qualities of imagination and reasoning; the employment of a good method and of an orderly arrangement of facts; formed the principal topics of the first division, and these were illustrated by statements of the influences of Anatomy, Physiology, Chemistry, Medicine, and Surgery on the mental powers. In speaking of the marvellous influence on the Student's mind of a good order and arrangement, the lecturer referred to his student life, and to the effect upon him of Dr. Sharpey's precise and admirable method of teaching Physiology. The cultivation of the moral faculties was then considered. The Medical Profession was stated to be one of self-sacrifice and self-denial. Reference was made to the trying situations in which Medical Practitioners are often placed—situations demanding the greatest courage and fortitude. The consideration, forbearance, kind feeling, and conscientiousness demanded in the exercise of the Profession, both towards patients and Practitioners, was next insisted upon; and after a considerable development of this subject, Dr. Parkes stated that, if the various sciences required to be learnt by the Medical Student had the effect of developing his mental powers, the practice of his Profession, if properly conducted, was no less efficacious in forming his moral character. The training of the body formed the third topic of the lecture. Physical, was stated to be only less important than mental and moral health. The body must be kept sound, if its in-dwelling mind is to be kept vigorous and strong. Physical vigour reacts on mental strength; the man of weakly frame never reaches, or soon loses, the full development of his mental power; or, at the least, the want of physical strength greatly hinders usefulness. Although it is not easy in a city like London to preserve the full vigour of the body, much may be done by careful management. The absence of dissipation, the avoidance of undue mental work, the timely exercise of the frame are the chief modes of preserving health. A brief exordium to the students to enter on their work with earnestness and with a proper sense of the responsibility thrown upon them, concluded the lecture. Dr. Parkes's lecture, which was written with great elegance, and delivered with much feeling, elicited frequent approbation, and was much applauded at the conclusion.

WESTMINSTER HOSPITAL.

The introductory lecture was delivered to a numerous audience by Dr. Fincham, who commenced by alluding to the mixed nature of the audience which usually assembled on the occasion of an introductory lecture, and to the difficulty of introducing topics interesting to all present, proceeded to address himself specially to the younger portion of his hearers. With this object in view, the lecturer passed rapidly in review. First, The end and object of all medical study; and secondly, the means by which this object was to be attained. "The special object of the student in medicine," and we quote the lecturer's words, "is the cure of disease, and the alleviation of suffering. He is not here for the purpose of becoming the exact anatomist, the profound physiologist or chemist, the minute microscopist, or even the complete pathologist. One, or all of these he may be, nay, the more he makes himself all

of these, the better he will attain the end for which he is a student, but he must never forget what that end is." Whilst, however, thus arguing the importance of their having a clear and definite idea of what is the object of medical education, the lecturer was most anxious to impress upon his hearers the necessity of steady, systematic devotion to the different preliminary branches of science that would claim their attention. "Do not imagine for one moment," he continued, "that, because I wish you to bear steadily in mind the great object of your education, I wish you *always* to be thinking of it when engaged in your various studies. Devote yourselves, on the contrary, for the time, to each science, as if *it* were your sole object. Do not be always asking yourselves, what is the practical bearing of this or that portion of it—how it is to help you to cure disease. If it is right and necessary for you to study anatomy, chemistry, and the rest, it is right for you to study them thoroughly. It is only in this way that you can know what portions of them are really practical—what parts bear on the knowledge and treatment of disease. The lecturer then proceeded to consider the means whereby the art of healing is acquired, under the threefold division of anatomy, physiology, pathology, and therapeutics. After briefly commenting on the first head, he urged more at length the immense importance of a right knowledge of the second, pathology; understanding, by this term, not merely morbid anatomy, with which it is not uncommonly erroneously confounded; but the whole science of disease—its causes, onset, progress, issues, whether tending to life or to death—what, in fact, disease is in itself, independent of all interference of art. He showed how a knowledge of pathology, in this sense of the word, lay at the root of all sound and rational practice; how, in many instances, where a malady has a natural tendency to cure itself, it teaches the practitioner not to interfere too roughly; and again in other cases, by showing him how it is, and where it is, that the system fails thus to right itself, and sinks under disease, it instructs him in what way art may step in, and aid nature in her struggles. In connection with the subject of pathology, the lecturer urged his hearers to pay special attention to pathological chemistry, as being that branch of science from which, in conjunction with careful clinical observations, there is best reason to hope for a real advance in the knowledge of diseased action. He, lastly, alluded to the subject of treatment, and whilst allowing to the full, the extreme difficulty of forming a right judgment as to effect of medicines, he warned the student not to be over sceptical as to their efficacy. He pointed out in several instances how impossible it was to doubt their powers, whilst at the same time, he showed how remedies, like other gifts to man, only attain the end for which they are destined, through the reason, the intelligence, and the experience of man. In conclusion, the lecturer alluded to the spirit and temper with which the student should begin the study of medicine, and to the motives by which he should be influenced: he spoke of the labour and toil that must of necessity be the lot both of the student and the practitioner, but he pointed out how this was common to every calling that was to bring forth fruit. He spoke further of the sanctity of the healing art, how in this it was surpassed by one vocation only, the ministry of the soul. With a profession, therefore, second to none in scientific scope and interest, second to but one in the sanctity of its end, it remained with the student himself to show himself worthy of it. The lecturer was warmly applauded at the conclusion of his address. After the lecture, the prizes for the past year were distributed, and a conversazione was held in the Board-room of the hospital, where many old friends of the institution assembled.

ORIGINAL COMMUNICATIONS.

JERSEY HOSPITAL REPORTS.

SUCCESSFUL CASE OF TRACHEOTOMY IN CROUP.

By G. M. JONES, Surgeon.

John Pike, aged 5, a very lively and moderately strong child, was suddenly attacked with croup at 4 p.m. on the 12th August; he was at once removed from that part of the Hospital buildings in which foundlings are kept, and placed in the sick ward where I happened to be, so that the affection was treated vigorously from its onset. The attack having come on without premonitory symptoms, induced me immediately to apply a large sponge dipped in as hot water as the hand could bear to the throat, a practice proposed by Dr. Leham, of Torgan, and highly eulogised by Dr. Stokes in similar cases; full and free vomiting by means of tartarised antimony was induced; nausea and faintness kept up afterwards, and calomel combined with James's powder was freely given, also warm baths, etc.; at 8 the next morning there appeared some melioration of symptoms, though none were distinctly marked. At noon the fever had increased, the breathing more difficult, the inspirations more sonorous, and the "brassy cough" more frequent. At 6 p.m. it was very evident the disease was gaining ground rapidly, the pulse was feeble and occasionally intermitted, the eyes put on a dull and heavy look, and an evident tendency to lethargy was perceptible. Taking all the circumstances of the case into consideration, I considered myself fully justified in performing tracheotomy at this stage of the disease.

The operation consisted in cautious dissection until the trachea was plainly brought in view; this was accomplished partly by the scalpel and partly by its handle; it was then hooked and gently drawn up by means of a tenaculum, and while stretched, the knife was thrust into it and its rings divided from below upwards; there was considerable hæmorrhage, and one vessel gave out its blood so freely that I felt inclined to secure it at once, pressure for a short time with the finger was, however, sufficient to arrest it. The division of the trachea was at once followed by the escape of about half a teaspoonful of matter, then a quantity of viscid red coloured mucus gushed out with a rush of air, and the sudden expansion of the lungs naturally occasioned by the newly made opening propelled much of the same kind of secretion through the natural passage; the canula employed was of a larger size than is generally introduced in children; it had moist lint applied round it, nothing more, and was secured in the ordinary manner. Chloroform was not given.

Almost immediate relief followed the operation; ten drops of tr. opii were given, and milk and broth ordered to be taken when thirsty; four hours after, a blister was applied to the sternum, and one-third grain of calomel combined with one-twelfth of ant. tart. was prescribed every four hours. During the cure two other blisters were applied, and the powders (though at longer intervals) continued for four days. In cases of this kind it is far better to anticipate symptoms, than have to grapple with them when they have already shown themselves; I shall not dwell on the daily progress of the case, suffice it to say that the canula had very frequently to be cleared of the mucosities which adhered to it (this was easily effected by a kind of small scraper corresponding with the form of the canula), and that till the 6th day the cough was at times rather troublesome, almost invariably humid. The breathing was always so tranquil while the child slept, that at no time could it be pronounced otherwise than natural. A moderate quantity of light nourishing food was allowed from the first, and anything in the shape of drink was swallowed with the greatest avidity. Quinine and wine were commenced on the 7th or 8th day.

On the 12th day the canula was withdrawn, but this was followed by so severe a spasm that it was re-introduced. On the 14th it was again removed, but with the same result, though in a much less severe form: I introduced it once more, and by night and morning loosening the tape which held it, by degrees it eventually fell out of itself on the 18th day, and on the 21st the wound was perfectly healed, and the child discharged from the sick ward.

I have seen the little patient to day (Sept. 25) and found him playing with his companions, and running about without the slightest appearance or symptom of having ever been ill.

I shall shortly send you some observations advocating an earlier performance of this operation in croup than is generally practised in England.

ARMY MEDICAL REPORTS.

(Selected, by Authority of the Director-General, from Documents in the Office of the Army Medical Department.)

No. XXVII.

OBSERVATIONS ON THE STATISTICS OF (MEDICAL) DISEASES OF THE STOMACH AND BOWELS,

AS THEY AFFECT SOLDIERS, OFFICERS, WOMEN, AND CHILDREN, IN INDIA.

By CHARLES ALEX. GORDON, M.D.,
Surgeon 10th Regiment of Foot.

If we consider the number of deaths that annually occur from diseases of the stomach and bowels among soldiers in India, and compare them with the number who, on an average, fall on the field of battle, or perish through ordinary causes incidental to a campaign; we cannot but see how much more destructive to human life are the climatorial influences to which our troops there are almost uninterruptedly exposed, than are the various dangers and perils of field-service to which they are comparatively rarely, and for short periods at a time, called to enter.

No Medical officer in India can be otherwise than appalled at the amount of mortality, as well as the rapidity with which the class of diseases now about to be considered run on to a fatal termination among all classes of persons composing a British regiment, and there are few who have not felt a desire to compare the results of their endeavours, to combat them with those of their Professional brethren.

It is not pretended that the treatment followed in the Hospital of the 10th Regiment has been more successful than that in others; on the contrary, the results have, in too many instances, shown it otherwise. As, however, various methods have been adopted in the management of disease by the different Surgeons who have been in charge of the corps during a somewhat protracted foreign service, the sum of the results may, probably, be considered an approximation to what may be expected to occur among an equal number of persons in India similarly circumstanced.

With this view, the following tabular form is here introduced, representing the prevalence of this class of maladies during thirteen years the regiment has served in India:—

Particular Forms of Disease.	Soldiers. Strength, 11,780.				Officers. Strength, 409.				Women. Strength, 1191.				Children. Strength, 1460.			
	Cases admitted.	Deaths.	Deaths per 100 treated.	Cases per 100 strength.	Cases admitted.	Deaths.	Deaths per 100 treated.	Cases per 100 strength.	Cases admitted.	Deaths.	Deaths per 100 treated.	Cases per 100 strength.	Cases admitted.	Deaths	Deaths per 100 treated.	Cases per 100 strength.
1. Peritonitis	5	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
2. Gastritis	20	4	18·91	0·33	1	..	..	0·24	2	..	..	0·25	..	..	100	0·06
3. Enteritis	12	3	..	..	..	..	..	..	..	..	..	..	1	1	..	..
4. Dyspepsia	452	7	1·54	3·83	45	..	..	11·00	19	..	..	1·58	..	..	..	..
5. Colica	124	..	..	..	9	..	..	..	21	..	..	..	3	..	..	..
	..	..	..	2·15	..	.	..	6·60	..	..	..	3·52	..	..	..	0·41
6. Obstipatio	124	..	..	..	18	..	..	..	21	..	..	..	3	..	..	..
7. Cholera	162	85	52·46	1·37	3	3	100	0·73	24	17	70·83	2·01	10	8	80	0·61
8. Diarrhœa	870	8	0·91	7·38	45	1	2·22	11 00	40	3	7·50	3·35	67	9	13·43	4·58
9. Vermes	28	..	..	0·23	1	..	..	0·24	1	..	..	0·08	..	..	..	..
10. Dysenteria acuta	1174	131	..	..	21	..	..	..	78	20	..	..	40	6	..	..
	..	..	11·47	10·57	..	..	..	5·37	..	..	26·24	6·70	..	..	15·00	2·73
11. ,, ,, chronica	72	12	..	..	1	..	..	..	2	1	..	..	..	..	..	..
General Totals	3043	250	..	..	144	4	..	..	209	41	..	..	124	24	..	..

It is perhaps almost needless to observe, that in the preparation of statistics it is necessary that we should avoid the fallacy that may arise from calculations made from insufficient data, as well as from promiscuously combining results depending upon different laws.

This will be rendered more apparent by such items as the calculation of deaths in a small number of cases, as in the three first diseases noted in the table, as they occur among children; and it will also be observed that simple addition and division by the number of particular diseases—of the columns of per centage do not give the results obtainable from calculations made direct from the principal columns.

Avoiding then, as far as possible, these causes of error, we learn from the above table that diseases of the stomach and bowels prevailed in the ratio—

	Per 100 strength,		Per 100 treated, died,
Among soldiers of	25·83	and that	8·21
,, officers	35·20	,, ,,	2·77
,, women	17·46	,, ,,	19·61
,, children	8·49	,, ,,	19·35

If these results be compared with what, in a former paper, has been shown to occur in fevers, the greater mortality from the present forms of disease will become apparent, although the liability of all classes to attack is less than half what it is to them.

It is generally believed that children are especially liable in India to become the subjects of gastric and intestinal disease. This does not seem, however, to have been the case in the 10th. Regiment; the proportion of attacks having been not more than a third of those among soldiers, but the mortality, it will be observed, is remarkably high among them, as well as among soldiers' wives.

The correctness of a remark already made in regard to affections of the chest and fevers, is still further confirmed in the present instance, namely, that the liability of a particular class to these diseases is no criterion of the rate of mortality among them from such causes. Thus, officers who exhibit the largest per centage of attacks, show also the smallest ratio of mortality; while the children who are comparatively exempt from disease, present a very high proportion of deaths to attacks,—only inferier to what occurs among women, whose liability is intermediate between that of soldiers and their children.

Gastric and intestinal diseases seem, as a class, to be most frequent during the first few years a regiment is in India, and while it occupies stations in the humid climate of the lower provinces. Some, however, such as cholera and dysentery, seemed to have prevailed in an epidemic form, without any apparent reference to stations or seasons; and others, as colic and constipation, occur in so nearly an equal ratio, that the coincidence is most remarkable.

Those diseases of the present class depending on active inflammation, noted in the returns under the respective heads of peritonitis, gastritis, and enteritis, are of inconsiderable frequency among the various denominations of peesons constituting a regiment, but when they do happen are very destructive to life.

It may safely be presumed, from the circumstance of no death from peritonitis being noted, that this disease did not occur in the virulent form in which it is usually met with in this country. In India, abdominal inflammations are often attended by excruciating suffering, and it is probable that in these instances the peritoneal covering was only secondarily affected.

That unequivocal cases of the disease however do occur among soldiers in that country is well known to practitioners there; but its almost entire absence among women, who, judging from what happens at home, might be expected to be especially subject to it, is somewhat remarkable.

The circumstance to which it is most frequently attributable, is exposure to cold on the line of march; but, as a sequence of other diseases it is by no means unfrequent, although in such instances the case does not appear under this particular head; for instance, the inflammation of enteritis is apt to extend through the intermediate tissues to the outer covering of the intestines. In severe or protracted dysentery, ulceration may penetrate; or a hepatic abscess may burst into the peritoneal sac, all of which occurrences, although directly occasioning death by this particular disease, are nevertheless included under other heads.

Active inflammation, or intense internal irritability of the stomach, are considerably more frequent among soldiers, than is the affection just alluded to, and this is by no means matter of surprise. Nay, the cause of wonder is that it is not more so, when we consider the little care they bestow upon the selection of proper articles of food and drink, and the injurious articles in which they indulge.

Uncomplicated gastritis is of rare occurrence, but, combined with inflammation of the liver, is not uncommon; and some such cases are included under the latter head; while, on the other hand, some cases of less severity appear under the head of dyspepsia.

One class of cases that not unfrequently appear under the head of gastritis arise as a direct consequence of protracted indulgence in spirituous drinks or highly-seasoned dishes. The delicacy of his palate once impaired by drink, the soldier requires highly-seasoned food and condiments to make any impression upon it. He ceases to be satisfied with his ordinary rations, has recourse instead to highly-flavoured stews, curries, etc., which in their turn induce a taste for the very strongest drinks he can obtain.

At last he is only satisfied with rum, in which capsicums have for some time macerated. He indulges in a debauch, is admitted into hospital affected with continued and obstinate vomiting; the epigastrium exceedingly tender to the touch; tongue red; the system in a state of pyrexia, and he unmistakably suffering from inflammation of the gastric mucous membrane, induced by indulgence.

Such cases, when the symptoms are urgent, are noted in the returns as gastritis; when less acute, as dyspepsia; nor is it easy to say always to which of these they most properly belong.

Under the head of enteritis, two classes of cases are noted —the one, and that the most frequent, where the lining membrane is apparently more affected; the other where the central tissues of the intestine are the seat of disease. In the former, diarrhœa is a prominent symptom; in the latter constipation, but both forms are attended by severe abdominal pain increased on pressure, red or reddish tongue, and pyrexia.

There is reason to believe that a considerable number of cases among children, noted as diarrhœa, are in reality cases of active inflammation of the small intestine, induced by exposure to cold and wet; and in the treatment of what is conceived to be only an attack of simple looseness in an infant in India, it were well if we always bore in mind the suddenness with which unequivocal symptoms of inflammation, either of the lining membrane or of its entire thickness, including even the peritoneal covering, may occur; for, when such occurrence happens, death takes place with great rapidity.

Dyspepsia, as applied to diseases of soldiers in India, is a vague term, employed to denote impaired digestion from almost whatever cause; nor is it necessary, in Military practice, that we should endeavour to seek out its origin in the non-elimination from the blood of this particular material, or the non-elimination of that. It would, in most instances, be difficult to say which is the cause, and which the effect.

It is somewhat curious to observe that, during the first five years the 10th Regiment was in India, the annual admissions from dyspepsia was greater than in any other equal number of years of its service there. Nor is it easy to say why this should be the case, for we know that the longer a person remains in that country, so does the integrity of his digestive powers become impaired, even should he not suffer from actual organic disease.

He finds himself every year more and more under the necessity of employing moderation in the quantity, and care in selecting his diet. Attacks of heartburn, or indigestion, become frequent after meals; the state of the alvine secretions is uncertain. He has acid, or alkaline, or sulphurous eructations, suffers from incubus at night, becomes feverish at night and irascible during the day. The cutaneous and urinary secretions are at the same time affected in quantity, or quality, or both; and to use a common, but very explanatory expression, the system becomes gradually worn out.

As will be more particularly attended to elsewhere, many cases of hepatitis occur, especially in old soldiers, and at the approach of the hot season, when the distinctive symptoms of that disease are so obscure, that on first admission they are considered to indicate nothing more than "dyspepsia;" nor is it until a sudden fit of shivering or circumscribed pain or fluctuation proclaims their real nature that particular attention becomes directed towards them. Such then constitute a considerable proportion of the fatal cases here returned under the latter heading.

On comparing the relative rate of occurrence of colic and constipation among the soldiers of the 10th Regiment in India, with what was observed in the 57th Regiment during its tour of home service, from 1846 to 1851, part of which time I was Surgeon to the corps, the circumstance has been observed by me, that while colic in India is somewhat less frequent, constipated bowels are considerably more common there than in the United Kingdom.

Colic in India arises from much the same causes that induce it in this country, such as errors in diet, exposure to wet and cold, and, greatest of all, neglect of the bowels. Many cases of the disease are sent to hospital in consequence of the sharp, cutting cold to which soldiers in India are so often exposed on morning parade; or during the long marches, which are always made at night, or before sunrise, for the shell-jackets or coatees worn at the time to which these notes refer, furnished an insufficient protection to the abdomen against the sharp, piercing cold to which, more particularly in the upper provinces, they were exposed.

The numerical returns only include cases of such severity as to necessitate their admission into hospital; but this does not by any means indicate the number of men who had to fall out from time to time in consequence of stomach-ache on such occasions, but who, after an ordinary carminative, or what is often even better, a cup of hot tea or coffee, were able in the course of the day to resume their duty.

Although not exactly bearing upon the subject of statistics, it may not be altogether out of place to mention that an excellent, and, at the same time, agreeable mode of preventing the cold of the early morning from thus affecting the men of the 10th Regiment, during some of the long marches the corps had to make, was advantageously adopted by the present commanding officer(c), and deserves to be more generally followed than it is among regiments serving in India.

It is, to have a cup of good hot coffee served out to each man about daybreak, when on the line of march; this being the period when the intensity of cold is at its maximum. A halt of twenty minutes then becomes a pleasant break in the monotony of the dreary march, and the price of the beverage is only what the very poorest can readily afford.

Constipated bowels is one of the most general ailments among Europeans of all classes in India, except children; nor do Hospital statistics exhibit the actual degree to which it prevails; for the great majority of persons so affected are able, by the occasional use of medicine, to follow their ordinary avocations, although all such suffer in general health, are generally spare, unhealthy-looking, are irritable in disposition, and speedily acquire that peculiar tallowy expression of countenance so characteristic of the affection: that—

> "Man is not himself,
> When Nature, being oppressed, commands the will,"

is a truth daily verified in the persons of many subjects of this affection at home; but doubly so in India, where there are many more circumstances to harass than in this country.

One description of constipation met with in India deserves notice here. It is most apt to occur among delicate women during the intensity of the hot season, and arises apparently from mere nervous exhaustion. The operations of digestion seem gradually to become impaired; the bowels act tardily

(c) Lieutenant-Colonel William Fenwick.

and imperfectly, and at last seem to lose the power of expelling their contents, at the same time that the strength of the patient becomes reduced in a great degree.

This form is apparently much influenced by meteorological influenees in operation at the time, and in many instances the first real improvement that occurs takes place simultaneously with the advent of one of those severe storms, with or without electrical discharges, that, fortunately for the sake of the sick, are of frequent occurrence in Upper India, and do much to render existence there for several months even tolerable.

It does not always happen, however, that constipation occurs during the hot season alone, on the contrary, some persons suffer most from it during the cold weather; nor is it always confined to persons of sedentary habits.

The returns of the regiment seem to indicate that it prevailed to the greatest extent during the first three years the corps was in India; but, otherwise, the rate of occurrence did not seem to depend upon station.

I may mention that the remedy found most efficient in moderating this tendency to constipation. was a combination of compound colocynth pill, ipecacuanha, and henbane, administered every day in small quantities.

The diet generally employed, especially among officers and their families, consisted of such articles as "Soojee," or ground-bearded wheat, made into a preparation like Scotch porridge, or Irish stir-about, stewed prunes, figs, preserved or fresh, and molasses, made in the preparation of native sugar. The other affections under this head must form the subject of another paper.

August, 1856.

THE PROVINCIAL
PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE FIRST HALF-YEAR OF 1856.

The subjoined Report comprises the following Hospitals:—Addenbrooke's (Cambridge), the Cheltenham General, the Cumberland (Carlisle), the Derby General, the Dorset County (Dorchester), the Dundee Royal Infirmary, the Durham County, the Gloucester, the Hitchin General, the Hull, the Kent and Canterbury (Canterbury), the Leeds, the Leicester General, the Liverpool Royal, the Liverpool Southern and Toxteth, the Margate Sea-bathing Infirmary, the Nottingham General, the Sheffield General the South Staffordshire (Wolverhampton), the Staffordshire, General (Stafford), the Sussex County (Brighton), the West Norfolk and Lynn (Lynn).

AMPUTATIONS.

	Total.	Recovered.	Died.	Percentage of Deaths.
Double Amputations	2	1	1	50
Of the Thigh	12	8	4	33
Of the Leg	15	9	6	40
Of the Foot	7	6	1	14
Of the Upper Extremity	19	16	3	16
Total of all cases	55	40	15	27

Double amputations.—Case 1.—The Liverpool Southern: Mr. Minshall.—A healthy porter, aged 25, had sustained in a railway accident severe comminuted fractures of both legs, the ankle-joints being laid open. Primary amputations were performed in the middle third of the right, and in the upper third of the left leg. Vomiting continued from the time of the operation to that of death (forty-eight hours after), and he never rallied. *Case* 2.—Dundee: Dr. Nimmo.—A very healthy lad, aged 12, admitted on account of injuries sustained in a mill accident. The left arm had been torn off close below the elbow, with severe laceration of the soft parts to within three inches of the shoulder-joint, and the right hand had been torn off just below the wrist-joint. Primary amputations through the surgical neck of the humerus in the left, and at the wrist-joint on the right were performed. Recovered without a bad symptom.

Of the thigh.—Case 3.—Sheffield: Mr. Jackson.—A healthy lad, aged 16. The knee was contracted from old disease, and the tibia dislocated backwards. Amputation. Recovery. *Case* 4.—Addenbrooke's, Cambridge.—A delicate boy, aged 14. Acute destructive inflammation of the knee-joint, with necrosis of the fibula and of part of the femur. Amputation. Recovery. *Case* 5.—The Derby: Mr. Gisborne.—A railway guard, in good health, aged 27. His leg had been crushed between buffers. Primary amputation. Recovery. *Case* 6.—The Dorset County: Mr. Curme.—A girl, aged 12, in very feeble health from the effects of disease of the knee-joint. The disease had first occurred two years ago, but had been subdued by treatment, and had relapsed. Amputation. Recovery. *Case* 7.—The Cheltenham General: Dr. Wright.—A girl, aged 19. Amputation on account of diseased knee-joint. Recovery. *Case* 8.—The Cheltenham General: Dr. Wright.—A delicate phthisical man, aged 36. Amputation on account of diseased knee-joint. Recovery. *Case* 9.—The Staffordshire General: Dr. Masfen.—A boy, aged 10, in tolerable health. Amputation on account of diseased knee-joint, with necrosis of both tibia and fibula. Recovery. *Case* 10.—Leicester: Mr. Paget.—A healthy man, aged 51. Diseased knee-joint of three years' duration. Amputation. Recovery. *Case* 11.—Leicester: Mr. Macaulay.—A healthy man, aged 50, had sustained, four months before, a contused wound of the calf, which, notwithstanding all treatment, did not heal. A month after the accident a large abscess formed in the thigh without pain or redness, from which most profuse discharge continued. His health failing, amputation through the thigh was performed. The femoral artery was found calcified where divided, but by dissecting upwards a more healthy part was found, and the ligature applied. Death occurred on the sixth day after the operation. At the autopsy, no lesions of importance were discovered. The arteries in the chest and abdomen were healthy. *Case* 12.—The Derby: Mr. Fearn.—A healthy man, deaf and dumb, was admitted in consequence of injuries sustained in a railway accident. His right leg was ground to pulp, and the spine had been contused. Primary amputation of the right thigh. Death on the third day, the rallying having never been complete. At the autopsy, blood was found extravasated into the right side of the chest, *Case* 13.—The Dorset County: Mr. Tapp. A man aged 42, in very feeble health, from the effects of acute disorganization of the knee-joint and a discharging abscess in the side. The thigh was in a very bad condition at the time of the operation, being greatly swollen, and a large abscess extending up it. Rather profuse hæmorrhage occurred, and many vessels had to be tied; a ligature was also put upon the vein. He was so much exhausted after the operation, that it was judged best not to remove him from the operating table. By the very free administration of wine, etc., he at length rallied fairly, and was doing well up to the twelfth day, when a rigor occurred. Pleuritic pain in the right side followed, and he sank and died of pyæmia on the twenty-first day after the operation. The ligature had separated from the vein, but that on the artery still remained. At the autopsy the vein was found sealed up by firm clot, which had softened only in one spot, about the size of a pea. Both pleuræ were lined with soft recent lymph. The left lung was healthy, but the right was universally in a state of grey hepatisation, and in many parts softening was commencing. There were no deposits of pus in the liver. *Case* 14.—The Derby: Mr. Fearn.—An emaciated labourer, aged 80, the subject of diseased knee-joint of four months' duration. He had also a large carbuncle on the back. Flap amputation was performed. Death from exhaustion on the tenth day.

Of the Leg.—Case 15.—The Derby: Mr. Fearn.—A lad, aged 18, under care on account of disease of the foot and ankle-joint of nine years' standing. Amputation in the lower third of leg. Recovery. *Case* 16.—The Derby: Mr. Fearn.—A man, aged 42, under care on account of diseased os calcis. Amputation in lower third. Recovery. *Case* 17.—The Durham: Mr. Stoker.—A healthy man, aged 45, had both his legs run over by a railway wagon. The right ankle and lower part of the leg were so much comminuted as to necessitate primary amputation. The left had sustained a compound fracture, with dislocation of the ankle, but so severe as to be hopeless. The stump has healed, and the compound fracture is doing well. *Case* 18.—The Durham: Mr. Shaw.—A healthy man, aged 28, had his right foot and ankle run over by a railway waggon. The tarsus was crushed,

but there was no wound of the skin. An attempt was made to save the foot, but sloughing followed, and on the tenth day profuse hæmorrhage from the dorsalis pedis artery. Amputation through the lower third of leg. Recovery. *Case* 19.—Addenbrooke's, Cambridge.—A man, aged 67, admitted on account of compound comminuted fracture of tibia and fibula. An attempt was made to save the limb, but his health giving way under the profuse discharge, secondary amputation was performed two months after the accident. Recovery. *Case* 20.—The Kent and Canterbury.—A healthy man, aged 31.—Primary amputation of the leg, in consequence of a compound fracture sustained in a railway accident. Recovery. *Case* 21.—Leeds: Mr. Teale.—A strumous man, aged 28. Amputation low down in the leg, on account of caries of the tarsus. A large abscess subsequently formed in the calf, but he recovered well. *Case* 22.—Sheffield: Mr. Barber.—A fairly healthy lad, aged 12. Amputation on account of diseased ankle-joint. Recovery. *Case* 23.—Sheffield: Mr. Barber.—A fairly healthy man, aged 25. Amputation on account of diseased ankle-joint. Recovery. *Case* 24.—Sheffield: Mr. Jackson.—A man, aged 54, in bad health. Amputation of the leg, on account of diseased ankle-joint. Death from exhaustion six weeks afterwards. *Case* 25.—Leicester: Mr. Paget.—A healthy man, aged 42, had suffered from severe elephantiasis of the foot for three years. At his own request amputation through the leg was performed. Death, without apparent cause, occurred on the tenth day. The stump had almost healed by the first intention. At the autopsy no important lesion was discovered. *Case* 26.—Sheffield: Mr. Barber.—A man, aged 30, in good health. Primary amputation on account of compound comminuted fracture of the leg. He never rallied, and died shortly after the operation. *Case* 27.—Leeds: Mr. Hey.—A woman, aged 30, in very bad health, the subject of carious disease of the tarsus. Death from phthisis followed, a month after the operation. *Case* 28.—Derby: Mr. Fearn.—A labourer, aged 28, thin and unhealthy, the subject for two years of disease of the ankle-joint. Amputation in the lower third of the leg. The stump healed, but again ulcerated. Death from exhaustion on the twenty-seventh day. *Case* 29.—Derby: Mr. Johnson.—A lad, aged 12, pale and flabby. Amputation in the lower third of the leg, on account of diseased foot. All went on well during the first fortnight. Typhoid symptoms subsequently set in, and death occurred on the nineteenth day.

Of the Foot.—Case 30.—Sheffield: Mr. Barber.—A man, aged 40, in fair health. Chopart's amputation, on account of diseased tarsus. Recovery. *Case* 31.—Leicester: Mr. Benfield.—A healthy labourer, aged 21; admitted on account of compound comminuted fracture of the metatarsus, with much contusion of the foot. Primary amputation at the ankle-joint, the flaps being obtained in part from the front, and in part behind the joint; severe inflammation of the leg followed, and abscesses formed, which required opening, and suppurated profusely. The stump healed by granulation. Recovered. *Case* 32.—Sheffield: Mr. Gregory.—A girl, aged 18, in fair health. Chopart's amputation, on account of diseased tarsus. Recovered. *Case* 33.—Leeds: Mr. Smith.—A healthy man, admitted on account of severe crush of the foot by a railway train. A primary Chopart's amputation was performed. Healing was by granulation, and a remarkably good stump was obtained. *Case* 34.—Cheltenham: Dr. Eves.—A boy, aged 13; admitted in consequence of an injury to the foot. Disease of the bones followed, and fourteen months afterwards Chopart's amputation was determined on. During the operation, however, the os calcis was found to be too much diseased to permit of its being saved, and, accordingly, the whole foot, excepting the astragalus, was removed. It healed well. Recovered. *Case* 35.—The Staffordshire General: Dr. Masfen.—A girl, aged 12, under care on account of scrofulous disease of the tarsus. Chopart's amputation was performed. Recovered. *Case* 36.—Leeds: Mr. Teale.—A healthy man had his foot crushed by a railway train. Amputation at the ankle-joint was performed a week after the accident. Severe rigors occurred on the third day after the operation, and death on the 14th. At the autopsy, pyæmic deposits were found in both lungs.

Of the Upper Extremity.—Case 37.—Leeds: Mr. Smith.—A healthy man, admitted on account of compound fracture of the wrist, with severe contusion. Primary amputation through the forearm. Recovery. *Case* 38.—Leeds: Mr. Hey.—A healthy boy, aged 13. Primary amputation on account of severe injury to the hand. Recovery. *Case* 39.—Leeds: Mr. Smith.—A healthy girl, aged 13, had primary amputation through the upper arm performed, on account of a severe crush of the arm. The skin afterwards sloughed, and a week after the accident the bone was removed at the shoulder-joint. Recovered. *Case* 40.—Leeds: Mr. Hey.—A healthy man, aged 35, admitted on account of a severe compound fracture of the forearm. An attempt was made to save it, but, gangrene resulting, secondary amputation on the sixth day was performed. Recovered. *Case* 41.—Sheffield: Mr. Jackson.—A man, aged 21, in good health, had his left forearm amputated (primary), on account of severe laceration. Recovered. *Case* 42.—Sheffield: Mr. Barber.—A healthy man, aged 23. Primary amputation through the forearm, on account of compound fracture. Recovered. *Case* 43.—Kent and Canterbury:—A healthy lad, aged 16. Primary amputation just above the wrist, on account of gun-shot wound. Recovered. *Case* 44.—Durham: Mr. Stoker.—A healthy boy, aged 14. Primary amputation through upper third of arm, on account of severe injuries sustained in a railway accident. Recovery. *Case* 45.—Durham: Mr. Shaw.—A healthy boy, aged 13. Primary amputation above the wrist, on account of crushed hand. Recovered. *Case* 46.—Durham: Mr. Stoker.—A healthy guard, aged 22. Primary amputation just above the wrist, on account of crushed hand. Healed by first intention. *Case* 47.—Derby: Mr. Gisborne.—A healthy girl, aged 10. Primary amputation through the upper arm, on account of compound fracture of the humerus, with wound of the brachial artery. Recovery. *Case* 48.—Derby: Mr. Fearn: A healthy man, aged 25. Primary amputation in the upper third of the forearm, on account of a railway crush of the hand. Recovery. *Case* 49.—Sheffield: Mr. Barber.—A healthy boy, aged 13. Primary amputation through the upper arm, on account of compound fracture. Recovery. *Case* 50.—Sheffield: Mr. Jackson.—A healthy man, aged 41. Primary amputation through the right upper arm, on account of compound fracture. Recovered. *Case* 51.—The Liverpool Southern: Dr. Petrie.—A healthy man, aged 21. Primary amputation through the upper arm, on account of compound fracture, near the elbow-joint. Recovered. *Case* 52.—Leicester: Mr. Benfield.—A healthy girl, aged 13, sustained a severe injury to the lower third of the forearm. Primary amputation below the elbow. Recovery. *Case* 53.—Leeds: Mr. Smith.—A healthy man, aged 56. Primary amputation of the forearm, for compound fracture. Rigors followed, and death, from pyæmia, on the twentieth day. Purulent deposits were found in both lungs. *Case* 54.—Derby: Mr. Gisborne.—A lad, aged 16, delicate and phthisical, under care on account of diseased elbow-joint, of five months' duration. Amputation through the upper arm. Death from bronchitis supervening an old disease on the eighth day. *Case* 55.—Sheffield: Mr. Jackson.—A healthy man, aged 46. Primary amputation of the left upper arm, on account of compound fracture. Death a fortnight afterwards from exhaustion. The shoulder-joint had suppurated.

EXCISION OF THE TESTIS.

The Dorset County: Mr. Sayle.—A man, aged 43, of very healthy appearance, was admitted on account of diseased testis. The gland was of the size of an infant's head, of oval form, smooth, soft, and elastic. There had been no pain in the back, nor was there any perceptible enlargement of the inguinal glands. He had first noticed an enlargement seven years ago, but had paid no attention to it until lately, when it had rapidly increased. There had been no pain, and its size and weight were its only inconveniences. An exploring needle was employed, and numerous compound cells of rounded form, and about three times the size of pus-cells, were found in the fluid so obtained. Excision of the gland was performed. The cord was found healthy. The wound healed, and the man was discharged well. The disease proved to be medullary cancer. *Case* 2.—The Leicester: Mr. Benfield.—A man, in good health, aged 43. The right testis had been enlarging for more than four years, and was now as large as two clenched fists. The whole was excised. In the operation the cord slipped, and the inguinal canal had to be laid open, in order to secure the spermatic artery. The cord was healthy. The disease was cystic sarcoma. The wound healed well. A gland in the groin at the time of the operation, somewhat enlarged, increased subsequently, and a month afterwards was the size of a hen's egg. The man is in excellent health.

Case 3.—The Hull Infirmary: Mr. Craven.—A man, aged 45, admitted on account of great swelling of the scrotum, which had existed two months, but with rapid increase latterly. A puncture had been made in consequence of a deceptive sense of fluctuation in one part, but blood only flowed. Much pain in the back was complained of. The removal of the tumour, which included both testes, was at length decided on. It was found, on examination, to consist of a large growth of medullary cancer, in the cellular tissue of the scrotum, by which both the testes had been enveloped. The testes themselves were healthy. Under the microscope the usual appearances were seen. The man suffered much constitutional disturbance after the operation, but ultimately recovered. Some months after his return home (to Doncaster) he died of internal disease, probably of malignant character.

REMOVAL OF NON-MALIGNANT TUMOURS.

Case 1.—The Hull Infirmary: Mr. Craven, jun.—A woman, aged 28, admitted on account of a large pendulous growth from the right labium. A similar growth had been removed some time before from the left labium, by Mr. M'Murdo, in St. Thomas's. Excision. Recovery. *Case* 2.—The Leicester: Mr. Paget.—A lad, aged 17, in good health. The left eyeball was pushed forwards and downwards by a tumour behind it, which had been of twelve years' growth. The globe appeared to be protruded about an inch from its proper level. An incision was made across the upper lid, and with some trouble the greater part of the tumour was dissected out. It was found impracticable to remove the deepest part, which had adhesions round the optic foramen, and was quite behind the globe. The edges of the incision were united by sutures, and the wound quickly healed. The eyeball afterwards receded into the orbit, and the cure was complete, excepting that ptosis from the division of the levator remained. Dr. Sloane examined the tumour with the microscope, and found only elements resembling those of the lachrymal gland, with which, however, it did not appear to have been connected, being situated more internally. *Case* 3.—The Cheltenham General: Dr. Eves.—A girl, aged 20. A tumour, the size of a walnut, existed in the substance of the biceps muscle, and had caused much pain. Excision. It proved to be of fibrous nature. The wound healed well.

REMOVAL OF MALIGNANT TUMOURS.

Case 1.—The Derby Infirmary: Mr. Fearn.—A woman, aged 26, under care on account of a nearly globular growth of "fungus hæmatodes," involving the second and third metatarsal bones of the left foot. Excision of the mass, and of the bones it grew from. Recovery. *Case* 2.—Hull: Mr. Huntingdon.—A man, aged 51. Excision of an epithelial cancer of the lip. Recovery. *Case* 3.—The Cheltenham General: Dr. Wright.—An elderly man. Excision of an epithelial cancer of the lip. Recovery. *Case* 4.—The Cheltenham General: Dr. Wright.—A woman, aged 43. A tumour, the size of a large walnut, of "fungoid" character existed in the hand. During the last two years it had been removed three times, twice by escharotics, and once by excision. On the present occasion, it was tied deeply by a double ligature. *Case* 5.—The Cheltenham General: Dr. Wright.—A man, aged 44. Excision of an epithelial cancer of the lip. Recovery. *Case* 6. — The Leicester Infirmary. — A man, aged 69. Excision of an epithelial cancer of the lower lip. Recovery. *Case* 7.—The Dorset County: Mr. Curme.—A man, aged 56. Excision of a large epithelial cancer of the lower lip, of four years' duration. Recovery. *Case* 8.—The Leicester: Mr. Paget.—A man, aged 74. Excision of an epithelial cancer of the lip. Recovery. *Case* 9.—The Leeds: Mr. Teale.—A healthy man, of middle age, had an epithelial cancer of the lip removed, and the sore left to granulate. The disease returned, and the scar was now removed by the V-shaped incision. It healed soundly.

EXCISION OF JOINTS.

Case 1.—Leeds: Mr. Smith.—A woman, in fair health, under care on account of disease of the elbow-joint (synovial), which had existed for three years, and with open sinuses. A complete excision of the joint was performed. The bones, where cut through, were hard and healthy. The incisions united almost wholly by first intention, and passive motion was employed within the fortnight. The recovery was rapid and complete.

Case 2.—Leeds: Mr. Samuel Hey.—A delicate young girl, aged 11, for four years the subject of diseased knee-joint. The joint was stiff at a right angle, and there was a large fistulous opening. Excision of the whole articulation was performed, a horse-shoe flap being made, and about half-an-inch from the tibia, and an inch and a-half from the femur, being sawn away. The patella was left. The synovial membrane was found thick and pulpy, and the cartilages were extensively ulcerated. Both bones were much softened. Subsequent to the operation the extremity of the femur got exposed in the wound, and was removed with bone forceps. The case is doing well. The child's health has rapidly improved, and the wound is cicatrizing healthily; it is feared, however, that there will be no bony union.

Case 3. — Addenbrooke's, Cambridge. — A healthy man, aged 22, was admitted with so severe a compound fracture of the lower end of the humerus, that amputation was at first thought the only resource. Subsequently, however, it was decided to excise the joint. This was done, and the man recovered well. Healing is now nearly complete, and there is some degree of motion preserved.

Case 4.—Addenbrooke's, Cambridge.—A delicate boy, aged 4, admitted on account of diseased ankle-joint. He was much reduced by constant pain and loss of rest. There was great swelling about the part, and there were three sinuses opening on the outer side, into which a probe might be deeply passed, but through which no bare bone could be found. No grating was felt on movement. His mother refusing to consent to amputation, it was decided to excise. A semilunar incision having been made on the outer side, from the tendo-Achillis to the border of the extensor tendons, the flap was dissected up, and the joint freely laid open. The cartilages had been wholly removed, and on the surface of the astragalus lay several small pieces of loose and discoloured bone. These were removed, and the other surfaces of the bones being covered with granulations were not interfered with. The leg was kept well at rest in a tin splint with a footboard. The boy's health improved rapidly, and the wound gradually healed. The swelling about the foot is subsiding. Under treatment.

Case 5.—Addenbrooke's, Cambridge.—A delicate boy, the subject of diseased spine, was admitted on account of chronic disease of the left elbow. There was great swelling about the joint, and he suffered much pain in it, especially at night. Excision of the whole articulation was performed. The cartilages were found extensively destroyed. A few days after erysipelas attacked the wound, and extended downwards, the swelling remaining for about a month. Meanwhile, however, the healing process went on favourably, and it is now nearly complete.

See also "Operations for Necrosis."

PUNCTURE OF THE BLADDER.

The Hull Infirmary: Mr. Craven, jun.—A man, aged 76, was admitted on account of retention of urine from enlarged prostate. He was suffering from all the symptoms of poisoning by urea. The day before, puncture of the bladder above the pubes had been performed by a surgeon in the town, but the canula had slipped out during the night, and could not be replaced. After repeated attempts to pass the catheter without success, Mr. Craven determined to again puncture. On the day after admission, it was accordingly performed, at a place a little below the former one. A catheter was passed through the canula, and secured. The uræmic symptoms passed off in a few days, and the man did in every respect well. Until nearly a month after the operation no urine passed by the urethra; after this, however, it began to flow, and the quantity so voided gradually increased until it was thought safe to remove the catheter from the wound. About two months after admission the man was discharged, the wound being soundly healed. During the latter part of the time Mr. Craven had several times succeeded in passing a catheter by the urethra.

PLASTIC OPERATIONS.

Division of Cicatrices of Burns.—Operations with the object of relieving contracted cicatrices have been performed in four instances, in all with more or less of benefit.

Hare-lip.—Successful operations have been performed for single hare-lip in three cases. In the double deformity one case has been operated on with success.

Procidentia Uteri.—In two cases of severe procidentia uteri under the care of Mr. Teale in the Leeds Infirmary, the usual

perineal operation was performed. In each with much relief to the patient.

Ruptured Perinæum.—A woman of middle age, under Mr. Smith's care in the Leeds Infirmary, on account of a severe laceration of the perinæum. The quilled sutures were used, and perfect recovery resulted.

OPERATION FOR UNUNITED FRACTURE.

Case 1.—Addenbrooke's, Cambridge. A man, aged 36, a labourer in good health, was admitted in March, on account of ununited fracture of the femur with great deformity. He had been maltreated by a quack bone-setter. The limb was two or three inches shorter than the other, the lower fragment riding in front of the upper one. There was free movement between the fragments, especially in a lateral direction. On March 30 an operation was performed as follows :—A longitudinal incision six inches in length was made down the outer aspect of the thigh, and crossed by a second over the ends of the bones. The latter having been exposed, the fibrous tissue connecting them was divided and their extremities were scraped, care being taken not to detach the periosteum from their circumference. The limb was then adjusted and placed in a gum and chalk apparatus, an opening being left over the incisions. Erysipelas came on a few days after the operation and spread from the wound over the whole limb and the abdomen. Death occurred on the 14th day. No autopsy was permitted. *Case* 2.—The Dorset Hospital. A child, aged 4, admitted on account of an ununited fracture of the tibia in its middle third. The fracture had occurred 15 months before, and had been duly attended to by a Surgeon. The bone appeared to have been broken obliquely from before backwards, and there was still free motion. Mr. Tapp operated with a tenotomy knife, introducing it between the ends of the bone and freely breaking up the false joint. Two short splints about four inches long were tightly applied on either side the limb and over these longer ones. On the third day after the operation large bullæ were observed and the splints were consequently laid aside. Sloughing of the skin had however set in, and two sloughs of considerable size separated from where the short splints had pressed. By careful treatment the child got well through this process, and the ulcers left slowly healed. Three months after the operation the healing had been complete several weeks, but there was still considerable motion between the ends of the bone, though certainly not quite so much as previously. Gutta percha splints are now worn. Under treatment.

REMOVAL OF THE BREAST, AND OF TUMOURS CONNECTED WITH IT.

Case 1—Derby: Mr. Gisborne.—A woman, aged 40. The entire breast was removed on account of a malignant tumour of very rapid growth. Recovered. *Case* 2.—Hull: Mr. Craven, Jun.—A woman, aged 40. Excision of the whole gland on account of cancer. Recovery. *Case* 4.—Addenbrooke's, Cambridge.—A woman, aged 22, in good health, under care on account of a tumour about the size of a walnut above the nipple of the left breast. It had existed two years. It was excised together with a portion of the breast to which it adhered. It proved to be a mammary glandular tumour. The wound quickly healed.

OPERATIONS FOR THE REMOVAL OF NECROSED BONE.

Operations of this class have been performed in nine cases; in some effecting the removal of the entire sequestrum, in others of only portions of it. In none did ill consequences ensue. The two following are of special interest. A woman, aged 22, under the care of Mr. Fearn, in the Derby Infirmary. A portion of necrosed bone was removed from the external condyle of the humerus: the disease having followed an injury. The disease has since involved the elbow-joint, and further measures will probably be required. A boy, aged 14, in delicate health, under Mr. Teale's care in the Leeds Infirmary, had suffered from symptoms of diseased hip-joint for two years. It was determined to explore the state of the bones, and, if necessary, excise the head of the femur. With this view a long curved incision was made over the outer part of the hip. The disease was found to be necrosis of the trochanter, and the sequestrum having been removed, the proposed operation was desisted from. The boy recovered well, a superficial sore, however, remaining unhealed at the time he left the Hospital. The movements of the joint were much improved.

LIGATURE OF ARTERIES.

Case 1.—The Derby: Mr. Johnson.—A man, aged 50, admitted on account of a compound fracture of the lower third of the femur. Profuse hæmorrhage from the femoral artery occurred six weeks after the accident. Ligature of what was believed to be the common femoral trunk just below Poupart's ligament was performed. The ligature came away on the 24th day, and the wound healed. Hæmorrhage from the original place recurred five times, at intervals of ten to fourteen days. Death from exhaustion followed fifteen weeks after the accident. At the autopsy it was found that the profunda was given off opposite to Poupart's ligament, and above where the ligature had been applied.

Case 2.—The Cheltenham General: Dr. Brookes.—A man, aged 57, was admitted on account of a large diffused aneurism in the arm after bleeding. He had been bled on account of pulmonary apoplexy six weeks before, and, at the time, a wound of the brachial artery was suspected. The swelling had since gradually increased. It was now very great indeed, and the distended integument over the external condyle was on the point of sloughing. An incision being made in the slough, some dark grumous blood first escaped, and afterwards a jet of arterial. The incision was now freely enlarged, and the coagula, to the quantity of three or four pints, turned out. The wounded part of the artery was now clearly seen, and without difficulty a ligature was placed above and below it. Over the wound in the artery were the remains of the vein distended into a sac. It appeared that the vein had been transfixed by the lancet, and that it had been distended into a sac by the arterial blood, which had finally caused its rupture, and become diffused in the forearm. The case is under treatment.

TREPHINING OF THE SKULL.

The Derby: Mr. Johnson.—A man, aged 44, was admitted, having sustained a compound fracture of the right parietal bone from a blow with a poker. The trephine was used, and the fractured portion raised. The dura mater had not been lacerated, and there had not, from the first, been any serious cerebral symptoms.

THE DUNDEE ROYAL INFIRMARY.

BRONZED SKIN WITH PHTHISIS AND CACHEXIA—DEATH—CYSTIC DISEASE OF THE SUPRA-RENAL CAPSULES.

(Under the care of Dr. CHRISTIE.)

Betsy Tait, aged 36, admitted August 2, 1856.

History of Case.—The patient has always enjoyed good health up till about six months ago, when, after exposure to cold, she was seized with cough with expectoration. About two months after the commencement of illness she had rigors, accompanied by pain of head and lumbar region, and, a few days after this attack, she observed her skin to become of a gradually increasing dusky colour. She has been treated by a Medical man for the last two months, but without any benefit.

State on admission.—She is emaciated, and her skin is of a bronze colour; the right side of face is in a semi-paralyzed state, giving a great peculiarity of expression when she speaks. Complains of pain over the region of liver, and in the loins, aggravated on pressure, more especially in left lumbar region; in both of these situations there is evident fulness. She has also cough, accompanied by frothy, muco-purulent expectoration; but has no pain in chest, which, on examination, sounds dull over left lung, where harsh, cavernous respiration is heard. Puerile breathing audible over lower part of right lung, and harsh breathing at its apex. Her bowels are constipated; urine normal; tongue dry; pulse 108, feeble.

Aug. 3.—℞ Ol. ricin. ʒss. statim, vini rub. ʒij., daily.

℞ Hydr. cret. gr. ij. tertiis horis, cataplasm. sinapis, lateri dextro.

4th.—The oil operated well, bringing away a large quantity of very dark-coloured fæces; but early this morning the patient sank into a comatose state, in which she continued till her death, at 10 a.m.

Sectio Cadaveris, 53 hours after death.—Body much emaciated; skin of a dark mahogany colour all over body and

legs. Extensive adhesions of old standing existed all round left lung, which also showed tubercle in all stages up to the large ulcerated cavity: the right lung was also tuberculous at its apex. Liver healthy; spleen healthy; heart small, and the muscular tissue rather flabby-looking; kidneys healthy. Supra-renal capsules rather larger than natural. On laying them open each contained a series of cysts filled with a thin, serous fluid, with small, floating flocculi, very little cortical substance remaining.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 128.—Co-existence of Bronzed Skin and Disease of the Supra-Renal Capsules.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—Having seen, in the last Number of the *Medical Times and Gazette*, some remarks with reference to the co-existence of bronzed skin and disease of the supra-renal capsules, and finding that such a condition is still gravely doubted by some French observers, notwithstanding the researches of Dr. Addison and the series of cases recently published in your Journal, the perusal of which first led me to investigate the matter, and examine more minutely these organs, I am induced briefly to record the result of my experience on the subject, and announce my conviction of having seen three well-marked cases of diseased renal capsules within the last six months, in cases wherein bronzing of the skin, though not the most prominent symptom, was certainly sufficiently obvious to attract general attention, and make me look forward to a post-mortem examination with more than ordinary expectancy.

The three cases referred to were those of persons in the last stage of phthisis, and in whom the fatal termination was preceded in one case by acute pleurisy, with effusion; in the other by general anasarca, with albuminous urine; and in the third by protracted and uncontrollable diarrhœa. In each—and this, I believe, will be found to obtain in a majority of cases dying of chronic disease—the cœcum was enlarged, its walls thickened, and mucous lining destroyed by patches of old ulceration.

There is another condition which, so far as I am aware, has not been particularly noticed by practical writers, but which, nevertheless, I conceive, deserves, from its relative frequency and pathological importance, the attention of those who are much engaged in autopsical examinations. I allude to the occurrence of patent foramen ovale in cases of death by phthisis, which has occurred to me now seven times during my residence here, and which has been noticed so frequently by others under similar circumstances, that I venture to ask, through your "Notes and Queries," whether this patency is peculiar to the above or other chronic disease of the pulmonary organs; and, if so, what is the *rationale*, or supposed systemic cause thereof? I am, &c. W. C.

No. 129.—Noises in the Ears Accompanied with Partial Deafness.

Sir,—I have a patient suffering from noises in the ears, accompanied with partial deafness. The case is of twenty years' standing; and he, being a Professional man, is most anxious of finding a remedy. I have tried various means without being successful. Can any of your subscribers be so obliging as to render me assistance?

The meatus is free, with a scanty secretion of cerumen of a light colour. The ears can be inflated by forcing air from the fauces; they have been rather irritable, but are now pretty free from chronic inflammation; the nose constantly discharges more mucus than natural.

I have used counter-irritants behind the ears, and given mercurial alteratives, and iodide of potassium in small continued doses; still the noises and partial deafness continue. The general health is moderately good. The patient is about fifty years of age. I am, &c.

A Subscriber of 20 years' standing.

77, East-street, Leeds, Sept. 21, 1856.

P.S. The patient has never had any pain, but a sensation of stuffing, which has improved of late; that is, that sensation is very little complained of

No. 130.—St. Luke, the Physician.

Sir,—Can you, or any of your numerous readers, inform me, through the columns of the *Medical Times and Gazette*, whether St. Luke, who is styled in Scripture "the beloved Physician," indulged in the art of painting; and if so, kindly state the evidence, and add whether it were probable that he ever painted on copper. I am, &c.

Your constant Reader.

ANSWERS.

To No. 126.—German Medical Terms.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—T. H. D. will find a very good dictionary of German Medical Terms appended to Palmer's "Pentaglot Dictionary of the Terms employed in Anatomy," etc., published in London, by Messrs. Longman and Co. in the year 1845.

Sept. 20, 1856. I am, &c. Eblanensis.

Medical Times & Gazette.

SATURDAY, OCTOBER 4.

THE OPENING OF THE MEDICAL SESSION.

Like the opening of a new Session of Parliament to the general public, is the opening of the Medical Session to the members of our Profession. Introductory Lectures expound to the general ear the objects, the aims, and the destinies of Medicine; the dignity and importance of the healing art are maintained, the claims of its Professors are duly urged, and the duties which devolve upon Students and Teachers in commencing a new Medical Session are set forth.

Having already devoted a considerable space to an Address to Students, and having pointed out to them the aims to be held in view, and the dangers to be avoided in the prosecution of their manifold studies, it may not be inexpedient to indicate some of the means by which Medical education might be improved, and at the same time to point out some of the obstacles which at present militate against its improvement.

To make an accomplished Physician or Surgeon, a combination of circumstances is necessary: zeal and assiduity on the part of the student himself; energy, ability, and honesty on the part of his teachers; and competence on the part of the examiners from whom he is to receive the licence or diploma which entitles him to practise. In addition to all these there are necessary that knowledge of the world and of mankind, and that practical experience of his Profession, which every man should strive to acquire, not only as a student, but as a qualified man. If these requisites be wanting, either wholly or in part, the efficiency of the practitioner is impaired, and the health and the lives of the public are proportionately endangered. Among the circumstances, therefore, which promote or retard the progress of the student, the management of the Medical Schools is one of the most important.

Our Metropolis offers almost boundless opportunities for acquiring Medical knowledge; we possess some of the most skilful Physicians and Surgeons in the world; many of our Lecturers are men of distinguished talent; our Medical Schools are rich in museums illustrative of every branch of our science. Our Hospitals are magnificent monuments of public charity, and rich depositories of practical knowledge of disease in all its various shapes. Yet these great opportunities are too often neglected, and precious time too often wasted, by the London Student of Medicine.

We are well aware that in this respect there is a great improvement upon former times, and that the Medical student of the present day is a very different person from his prototype of forty or even twenty years since. We also admit that on

the part of the teachers, much zeal is in many instances displayed in impressing upon the pupil the truths of Medical science, as illustrated by bedside observation; and were it not too invidious a task, we could indicate some of our Medical educational establishments where practical and personal teaching is especially and most commendably pursued; but there are also some where the pupil is left too much to his own devices, and where the friendly voice and the guiding hand are too palpably wanting to urge him into an honourable and useful career. Besides the exercise of kindness and encouragement, there are also still more often wanting the firmness and decision which can control the wanderings of the idle and the thoughtless, together with the independence of character which can make a teacher insist upon keeping watch over the progress of the pupil. The competition among the Medical Schools has prevented any one of the number from enforcing that attention to study, and that submission to discipline, which ought to mark the conduct of learners; for if one School were to adopt a high principle in this respect, it would be outbidden by other Schools, where, perhaps, the morality is less strict.

We conceive that the Lecturers of all the Medical Schools should make it their duty to ascertain by personal investigation the progress of the pupils; that they should institute regular periodical examinations in all the classes, which the Students should be bound to attend; and that on no account should Certificates of attendance on Lectures and Hospital Practice be granted except to those who have really availed themselves of the instruction offered. Such a course, honestly pursued on the part of all the teachers, would tend to raise most materially the standard of Medical qualification, and to secure to the public a supply of highly educated gentlemen as their Medical attendants. Under the present system, or rather want of system, a young man may waste in idleness a great portion of the three years usually devoted to attendance on Lectures and Hospital Practice, and may yet, by means of a "grinder," escape the vigilance of the Examining Boards, and receive his diploma. How far the Examining Boards are to blame for not making their examinations a test of practical knowledge, we may discuss on some early occasion.

THE WEEK.

A Correspondent, who signs himself "Fair Play," has given expression to a feeling which, we believe, prevails in many quarters, in relation to the Medical Officers of the British Army who have lately returned from the Crimea. It is suggested that, following the example set by the Medical Profession in France, a public banquet, or some other token of sympathy and congratulation, should be offered to our brethren of the Army, whose merits, although generally admitted, have as yet received no public recognition. It is needless for us to state that such a proposition would receive our warmest support, as we have advocated it on more than one occasion; and we should be most happy to find the hint acted upon, and the project carried into execution.

We publish this week an account of what appears to be another unhappy case of malpraxis in Midwifery, on the part of an unqualified Practitioner. The account is derived from a provincial newspaper, and we have no means of testing its accuracy; but, on a first view, we are horrified at the disgusting and painful details which the history of the case presents. The accused party, in the present instance, is placed by the "London and Provincial Medical Directory" in the list of those who have furnished no return of their Professional qualifications; but whether he be a qualified Medical Practitioner or not, we cannot but feel that the lives of women are too often placed in jeopardy by the ignorance and incompetence of persons who profess to attend them in the hour of nature's agony. The parturient process, in many instances, is accomplished with little difficulty; but exceptional instances often occur, demanding the exercise of the utmost promptitude, energy, and skill, without the exercise of which the life of the patient may be speedily sacrificed. It is really incumbent on the Legislature, not only to require of all Medical Practitioners a competent knowledge of Midwifery; but, moreover, to punish pretenders who venture to practise the obstetric art without the necessary education and experience to render efficient assistance in difficult parturition.

We have already noticed in this Journal the severe epidemic of cholera which has lately visited Madeira, and we have now the melancholy duty of recording the death of a member of our Profession, who visited that island for the express purpose of rendering any assistance in his power to the patients suffering from the malady. Dr. Ross, the gentleman to whom we now allude, had resided for many years in Madeira, but was on a visit to this country when he heard of the melancholy tidings from the land he had just left, of the dreadful mortality of the inhabitants, and of their want of Medical assistance. He at once determined to proceed to the plague-stricken island, regardless of all other calls, whether of pleasure or of profit, and rapidly fell a victim to his philanthropic zeal. It is stated that he proceeded on his mission in the most robust health and high spirits, and he could not, therefore, have carried with him any predisposition to disease. His loss will be mourned, not only by his family and by his numerous friends, but by all who can appreciate the moral heroism of a man who, in obedience to the call of duty, sacrificed ease and comfort, and who, in the hope of saving the lives of his fellow-creatures, risked and lost his own. In consequence of the prevalence of cholera at Madeira, Government has placed at the disposal of the authorities of the Island, Staff-Surgeon Matthew, with instructions to render any Professional assistance possible, and it is probable that other Army Medical Officers will follow. The "Salamander" leaves to-day with medicines and stores.

The columns of the daily papers have lately teemed with communications respecting the arduous duties and the scanty remuneration of the curates of the English Church; but the condition of another class of subordinates, equally or more hard-worked and equally ill-paid, has received but little attention. We allude to the class of Assistant-Surgeons in general practice, who are compelled, for a very scanty pittance, to perform an amount of duty in comparison of which the curate's services shrink into insignificance. The Assistant-Surgeon, like the curate, is an educated man; and to enable him to satisfy the demands of a Poor-Law Union he must be a qualified Practitioner; and yet he is compelled to accept the paltry remuneration of some thirty pounds a-year, exclusive of his board; or, if he be a married man, perhaps receives seventy or eighty pounds! For this salary, the Medical Assistant has to travel in all weathers to visit the patients (generally the pauper patients) of his superior, and is often compelled, in the performance of his duties, to forego his meals and his sleep; and, unless he happen to have friends, has very little chance of rising above the grade of an Assistant, but must spend the best years of his life in wasting and profitless toil. We have no wish to deny the claims of the curates to public sympathy; but we ask for the hard-worked inferiors of our own Profession some share of consideration.

The necessity for some supervision over Chemists and Druggists is becoming daily more apparent. It appears that a Mr. Hopkinson, a Druggist of Broad-street, Ratcliffe Highway, has been in the habit of leaving his wife, a young woman he had married within twelve months, to dispense medicines

and sell poisons. The wife acknowledged that she was more often in the shop than her husband, and as the Magistrate said, he had left her to administer deadly drugs, and she took enough laudanum herself to destroy ten persons.

In the course of an inquest held on Monday at Sheffield, it was stated that four Medical gentlemen in succession had refused to attend a poor woman, who was seized with apoplexy, and who died without Medical assistance. The jury returned a verdict of natural death, but appended to their verdict a caution to the Medical gentlemen as to their future conduct in such cases. This is a very painful incident; but we cannot subscribe to the opinion generally prevalent, that a Medical man is compelled to attend every person who applies for assistance, at any hour of the day or night, without remuneration. Lawyers are not in the habit of giving their services gratuitously; and the Coroner, who condemned the conduct of the Medical gentlemen in the present instance, would probably have refused to leave his bed to make a person's will, unless he felt confident of being paid for his services.

REVIEWS.

On the Composition of Food, and how it is Adulterated, with Practical Directions for its Analysis. By W. Marcet, M.D., London: 1856. Pp. 178.

In the introduction to this work, the author thus writes:—"I may be allowed to add, after having perused Dr. Hassall's book with attention, that some of his descriptions appear to me rather exaggerated. Besides, Dr. Hassall's book, valuable as it will prove as a reference, and in any step the Legislature may think fit to adopt on this important subject, is rather to be considered as a collection of voluminous reports, than as a guide for the Medical practitioner. It is under this impression, convinced by personal experience of the want of a text-book, containing the simplest, and at the same time most efficacious methods for detecting the nature of the adulterations to which our food is daily exposed, and encouraged, moreover, by a few Medical friends, that I beg leave to offer this little work to the public. It claims no originality, beyond the introduction of some chemical methods not hitherto employed in the analysis of food;" etc. That such a book as that before us was wanted, there is no question, and we do not know that the task of supplying the demand could have fallen into much better hands.

The matters discussed are distributed into chapters with the following headings:—"On Farinaceous and Saccharine Food and its Adulterations." "On Spices and their Adulterations." "On Infusion of Vegetable substances—other Fluid Vegetable Foods and their Adulterations—Tea, Coffee, Sauces, Olive-oil." "On Fermented Beverages and their Adulterations." "On Animal Food—Meat, Fish, Milk—and its Adulterations." "On Mineral or Inorganic Food and its Adulterations: Salt and Water." "On Preserved Food."

The whole of these subjects are treated in a very concise manner, yet not so briefly as to exclude anything that is really of practical value in the knowledge we have acquired of them. The work is illustrated by wood-cuts, which we would gladly commend if we could do so conscientiously.

The following is the method recommended for the detection of Alum in Flour.

"As alum is soluble in water, its presence is to be looked for in an aqueous extract of flour. If a sample of the meal be mixed with water, the fluid expressed through a cloth, and allowed to stand for some hours, a comparatively clear liquor is obtained. A small quantity of the fluid being decanted, if a precipitate is induced therein by ammonia and chloride of ammonium, with the application of heat, alum is very probably present; for a confirmatory test the precipitate may be collected on a filter, dried, and burnt on a charcoal support with the blow-pipe flame; a few drops of a solution of nitrate of cobalt are added to the substance, which being again heated with the blow-pipe, exhibits a blue colour, if alumina be present."—P. 21.

A similar method is recommended for the detection of alum in bread. "For a quantitative determination, ascertain the quantity of water present in the bread, by desiccation, macerate the dry mass, and digest it with dilute hydrochloric acid; then add ammonia, and apply heat to the mixture for some time, when the alum is precipitated in the form of alumina, which is collected on a filter, dried, and weighed.—P. 25.

Throughout the book free use has been made of Dr. Hassall's work on "Food and its Adulterations," not however without ample acknowledgment. Dr. Marcet has extracted the wheat and left the chaff. The following quotation will furnish a fair sample of the manner in which the several articles of food are discussed, but those which are more important are treated at much greater length.

Mustard.

"The plants which yield mustard, are the Sinapis nigra, or black, and Sinapis alba, or white mustard (natural family, Cruciferæ). The seed-vessels of the black mustard are smooth, and the colour of the seeds reddish or blackish brown. The pods, or seed-vessels, of the white mustard plant are clothed with hairs, and the seeds are yellow. The black mustard seed is more pungent than the white; it contains, moreover (black mustard seed), several distinct chemical compounds, of which the principal are a volatile and a fixed oil.

The fixed oil of mustard is usually produced from the siftings or dressings of mustard, which consist mainly of husk; it is stated to constitute about 28 per cent. of the seed.

The white mustard yields no volatile oil, but owes its properties to a non-volatile acrid principle; it contains, moreover, a substance called sulpho-sinapisin. Sesquichloride of iron strikes a deep red colour in an infusion of white mustard, and merely communicates an orange tint to an infusion of black mustard. Finally, the seeds of white mustard, when digested in cold water, give a thick mucilaginous liquor, which is not the case with the black variety.

English mustard is principally raised in the neighbourhood of York, and afterwards sold under the name of Durham mustard. The black variety is extensively cultivated in Bengal, and other Eastern countries, for the purpose of yielding oil. Flour of mustard is prepared by a process analogous to that employed for making wheaten flour; the siftings and dressings of the mustard correspond to the bran.

Microscopical Structure.—The entire seed consists of the husk, and seed proper. The husk of white mustard is formed of three cellular membranes. The cells of the first membrane are hexagonal, and perforated in their centre, other cells occupying these apertures, and being themselves traversed by a somewhat funnel-shaped tube.—(Dr. Hassall). The second or middle tunic, is the main seat of the colouring matter, and consists of very minute angular cells. The third or inner membrane, is formed of angular cells, several times larger than those of the middle tunic.

The seed itself is bright yellow, and of a soft waxy consistence; it is composed of very minute cells, in the cavities of which are contained the active principles. Ripe mustard seed does not contain a single starch granule.

In black mustard seed, the outer membrane consists only of the large hexagonal transparent cells, not being perforated in the centre, like those of the white mustard. In other respects its structures resemble those of the white mustard.

Adulterations.—The vegetable substances liable to adulterate mustard flour are pea flour (p. 15); linseed meal (p. 48); ordinary wheaten flour (p. 15); and turmeric powder (p. 58). The mineral adulterations are not frequent; chromate of lead (p. 41), in small quantities, may be employed to increase the colour."—P. 53.

At the various pages referred to in the last paragraph, the reader will find the characters, microscopical or chemical, of each of these adulterations delineated or described.

In the fifth chapter on Animal Food—Meat, Fish, Milk, etc., and its Adulterations, we rather expected to find described the characters by which diseased and unwholesome, but not putrid, meat might be distinguished; but Dr. Marcet is apparently no believer in the noxious properties of diseased meat, and considers it only 'objectionable' from its aptitude to undergo putrid decomposition. Dr. Marcet is a minister of consolation to the unwashed and unkempt multitudes of this mighty Babylon, when he assures them that "the market is undoubtedly provided with horse and dogs' flesh, which is more particularly employed for making soup and sausages;

but beyond the tough nature of the flesh and its disagreeable taste, it can hardly be called unwholesome."—P. 145.

The following practical rules for testing the wholesomeness of water will be useful :—

"1. The water must be perfectly colourless and transparent, leaving no deposit when allowed to stand undisturbed.

2. It must be quite devoid of smell.

3. When litmus paper is immersed into the water, the colour of the paper must remain unaltered.

4. The water when boiled must not become turbid.

5. About half a table-spoonful of the fluid being evaporated to dryness on the spirit-lamp, there must be a slight residue left at the bottom of the spoon not turning black from organic matters.

6. The residue obtained by evaporating to dryness a sample of the water in a porcelain cup upon the tea-urn, must not become black on the addition of a solution of sulphuretted hydrogen."

This book must have, as it deserves, a sale out of the Profession, as well as within it.

A Review of the Present State of Uterine Pathology. By James Henry Bennet, M.D. London, 1856. Pp. 99.

Dr. Bennet has, undoubtedly, a right to a reply. None of us require to be reminded of the history of the uterine controversy. That the profession should have been startled at first, and subsequently not a little perplexed by the new light imported ten years ago from the Parisian hospitals, and then by the attempts to extinguish it made by some of the leading practitioners of this country, is no more than might have been expected. The very facts on which Dr. Bennet based his views were flatly, and not always very courteously, contradicted. We were told that the pathological states which he described were a myth and a bugbear ; that the means of investigation, by which alone some of these conditions were deteetable, were indecent ; and that, when detected, the continued use of instruments was no less so ; and that both were un-English and incompatible with professional morality. Now that much of the storm has subsided, and the public mind is a little tranquilised ; now that abundant opportunities have been afforded to all, to investigate for themselves the truth or falsehood of his views, Dr. Bennet again asks to be heard ; and although we do not believe with him that "uterine pathology" and "uterine inflammation" are convertible terms, and although we do think that Dr. Bennet is no less fallible than his neighbours, and that he is liable to the same prejudices in favour of his specialty, we still say he has a right to be heard. What then has he to say ?

First, he says that he has been condemned without inquiry, or without such inquiry as alone would establish the soundness of his views, or disprove them ; and here he chiefly complains of the treatment his statements have experienced from Dr. Lee. We think that he has great ground for complaint ; for, much as we honour that distinguished physician, we cannot approve of the course he has pursued in this controversy. It has savoured too manifestly of prejudice, and too little of the true spirit of fair scientific criticism. Dr. Bennet disposes, to our mind, most satisfactorily of this opponent.

His next complaint is levelled against Dr. West, and is to the effect, that while his (Dr. Bennet's) assertion of the frequency of uterine inflammatory appearances is admitted as correct, their pathological importance is denied. Now here we must take Dr. West's part. Dr. West's lectures merely referred to one special pathological condition, and not, as Dr. Bennet assumes, to what he calls inflammatory conditions of the uterus, taken together. Dr. Bennet accuses Dr. West of fighting with a shadow, with an imaginary enemy, and with a foe of his own creation. Dr. West may well retort that Dr. Bennet, in this part of his volume, is doing precisely the same thing. The fact is, that Dr. Bennet, starting on the assumption that ulceration is one of the group of inflammatory conditions which produce the dire results he describes upon the female health, does not affirm anything special in respect of it ; and Dr West taking it alone as a pathological state, does affirm something special in respect of it ; viz., that it is for the most part of little pathological importance. Dr. Bennet then, if he is to deny Dr. West's conclusion, must meet him on his own ground. This he refuses to do.

"I cannot, however, discuss the question on the confined basis on which Dr. West has placed it ; I must be allowed to throw into the scale all the inflammatory lesions which constitute so large a part of what he makes his antagonistic group. I must have the inflammatory congestions, the chronic inflammatory indurations of the os, of the cervix, and of the uterus, etc., and this will leave very little behind."

But, if little is thus left behind, much is included, the *inflammatory* nature and origin of which, as modern pathologists understand the term "inflammation," is fairly questionable. Dr. Bennet appears to us to confuse the *frequency* of an occurrence with its *importance*. Dr. West admits the former, in respect of ulceration, but denies the latter ; Dr. Bennet thus writes :—

"I, on the contrary, see in it (the frequency of ulceration) positive proof of what I have often stated, viz, that the existence, unrecognised and untreated, of a large amount of uterine disease in the female population, is an indirect cause of death. Inflammatory diseases of the uterus and of its neck are essentially debilitating affections, through their reactions on the functions of digestion and nutrition." P. 22.

Then comes Dr. Tyler Smith whom he hails as at last an unwilling convert to the opinions he himself advocates. Dr. Bennet calls on Dr. Smith "publicly to acknowledge his conversion," and, as he admits the existence and importance of the appearances which he questioned some years ago, to admit also their inflammatory origin, predicting that as respects the use of the stronger cauteries in their cure, Dr. Smith ultimately "will pass the Rubicon and become a convert to the vitally modifying doctrine as he has become a convert to the ulcerative doctrine." P. 48.

The remainder of the work is occupied with disposing of the other theories on which the lesions of the uterus in question have been variously accounted for, viz., what Dr. Bennet calls, "The Syphilis Theory," "the Ovarian Theory," and "The Displacement Theory," concluding with a summary in which "The double Medico-chirurgical character of Uterine Pathology" is discussed.

There is one chapter, however, in this volume which we have not yet alluded to, namely the second, "A Sketch of Uterine Pathology." Here in few words the reader may find Dr. Bennet's creed. It is clearly announced, and on its truth or falsehood Dr. Bennet is prepared to stand or fall. "I believe," he writes "that the great majority of instances of confirmed uterine suffering that come under the observation of the Medical Practitioner, are cases in which the primary and principal evil, the morbid centre, is inflammation of the mucous membrane or of the proper tissue of the neck or body of the uterus, with its varied sequelæ." . . . "Where these morbid conditions are the indications of local disease, they are confirmed, varying in intensity but constant. When they are the reflex of general pathological states they are changeable ;—arriving and departing with the 'general' cause, and giving way under the appropriate treatment of the general states of the system to which they owe their existence." p. 7.

Here is his definition of ulceration :—"By ulceration I mean the result of destructive inflammation, characterised by the destruction of the epithelium and the exposure of a muco-pus-secreting surface."

All along he maintains that the test of the existence of uterine inflammation as the cause of the various local and general symptoms which he believes it may give rise to, is general treatment. If this fails he then looks with confidence to the uterus.

In an appendix to this volume there is a "Memorandum of the condition of the Genital Organs in the bodies of Fifty Native Indian Women who had died of various diseases ;" and a vindication of Dr. Bennet's real views as to the use of the stronger caustics in the treatment of uterine disease.

We recommend all interested in the subjects on which Dr. Bennet is at issue with his opponents, to read this book, and we have no doubt that ultimately the experience and good sense of the Profession at large, will eliminate from the discussion that truth to which the eyes of both parties may be blinded by the excitement of the controversy in which they are engaged.

School of Physic in Ireland.—The President and Fellows of the King and Queen's College of Physicians in Ireland have directed that Doctor John Thomas Banks shall continue to hold the King's Professorship of the Practice of Medicine for the term of seven years, to commence from the 18th day of December next.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

REPORT ON PHOSPHORUS MATCHES.

By M. TARDIEU.

The French Government recently originated an inquiry concerning the condition of the manufacture of lucifer matches, the accidents which these give rise to, and the desirableness of employing amorphous phosphorus in their production. A commission of eminent men was formed, and M. Tardieu was appointed its Reporter. A very minute investigation was entered into as to the condition of the manufacture and of the workpeople employed, and a long and able report has been sent in. The following are the conclusions arrived at:—1. The danger and inconveniences of the manufacture and employment of matches made of ordinary phosphorus. "It results, from the accounts now given, that this manufacture presents real danger in relation to the salubrity of the workshops, and the health of the operatives, and that the employment of these matches places a highly poisonous substance in the hands of every one, which has already given rise to fatal results, whether criminal or accidental (cases of poisoning by them, probably from the difficulty of obtaining the ordinary poisons, have become very frequent in France); circumstances which, added to the possibility of giving rise to frequent fires and explosions, demonstrate that there would be a true advantage in changing the composition of the paste, and in absolutely prohibiting the employment of the ordinary phosphorus." 2. The remedy consists in the substitution for the white the red or amorphous phosphorus. The only advantage that the white possesses over the red phosphorus is, that in the manufacture of the former, chlorate of potash is not required to be employed, and there is thus less deflagration; but the danger of explosion from this cause in the manufacture of matches with red phosphorus is very slight, and may be rendered still less by improved procedures; while no noxious emanations hurtful to the workmen are produced, and the matches so made are wholly devoid of any poisonous property. 3. As to the effect of the change upon the lucifer trade, this seems to be at present in a very bad condition in France, owing to the extreme competition that prevails in the production of cheap lucifers for exportation, especially to South America and Australia. The ordinary phosphorus averages but 9 francs the *kilogramme*, while the red or amorphous costs about 30 francs; but in the proportion in which phosphorus is employed, the cost of the lucifers will not be increased more than a penny per 4000. Almost all the manufacturers examined were anxious that the change should be made, provided it be rendered obligatory. With such change the condition of the work-people would also be improved. At present, though well paid, they are, as in most dangerous employments, dissipated in their habits, and irregular in their attendance, and are recruited from the lowest classes.—*Annales d'Hygiène, July.* pp. 1. 1854.

ON SYPHILIS IN INFANTS.

(By Dr. LUZSINSKY.)

Among other interesting observations, Dr. Luzsinsky makes the following:—Of great importance, and insufficiently noticed, are the affections of the mucous membrane of the stomach and intestinal canal, which, appearing early, accompany the group of symptoms exhibited by the mouth and genitals. These affections of the mucous membrane, as regards their intensity and extent, prevail in an inverse proportion to the age of the child, while the external syphilides maintain an exact proportion. The same redness and abundant secretion observed in the nose and mouth also exist lower down in the canal, and give rise to dyspepsia, vomiting of undigested food, together with much mucus, and, though seldom, mucous stools with colicky pains. As the affection is more frequent and more severe the younger the child, the abiding pain and increased secretion induce anæmia and emaciation. Older children, in whom the digestive organs are more strong, suffer less from it; and although they may present all the appearance of syphilitic blood-poisoning, yet not only do they not get thin, but they may even become fat. Children at the breast also suffer far less than do those who are deprived of this.

Upon examining children after death who have suffered from syphilis, with the general anæmia, there is found a greater fulness of blood in the vessels of the brain than normal, while effusion of fluid into the ventricle, or between the membranes, is not rare. The brain is found also of a very soft consistency, and dark colour. Neither suppuration of the thymus, to which P. Dubois attaches so much importance in congenital syphilis, nor the circumscribed collections of pus in the lungs, mentioned by Depaul, were found in any autopsy. On the other hand, lobular hepatization of the lung, or hyperæmia of its posterior portion, strongly contrasting with the remarkable anæmia of the other parts, were often met with. This stasis of the lungs easily occurs in feeble children suffering from exhausting diseases, and kept in the recumbent posture. The bronchi usually gave plain evidence of the existence of catarrh, and the bronchial glands were reddened and enlarged. Frequently, yet far less so than stated by Gubler, were changes in the liver observed. In two cases the organ had completely degenerated into a fatty liver, while, in several others, the change was limited to certain spots, giving the liver a spotted appearance. In other cases, beyond increased firmness and abundance of blood, no change was observed in the organ. The spleen, generally firm, and dark-coloured, frequently exhibited discolorations on its surface, and in two cases there was partial white infiltration, as in the liver. The kidneys, though usually so vascular that the two portions could hardly be distinguished, were in other cases pale, and of a lardy appearance. The mucous membrane of the stomach was often found loosened, covered with gelatinous mucus, and pale, or only reddened at the cardiac. That of the intestinal canal was in a catarrhal condition, and reddened, eroded, or ulcerated at parts, especially in the ileum and commencement of the colon, near the Peyerian glands. The lining membrane of the large intestine was frequently found thickened, its follicles developed, and surrounded by red circles. The mesenteric glands were red and swollen.

In this state of the alimentary canal, antisyphilitic remedies, such as iodine or mercury, not only are of no service, but do mischief by increasing the irritation. Our first object is to establish a suitable regimen, by giving only easily digestible food, of which the mother's milk is the best; but if the mother is unable to furnish this, we must resort to artificial feeding, for it is against all morals and humanity to risk the infection of a nurse. Light broth and milk, and sweetened solution of isinglass must be given, and similar substances administered by baths and glysters, the operation being aided by suitable tonics, of which opium and rheum are the best. If the digestive organs do not suffer much, or have improved under appropriate treatment, then we may proceed to the employment of specifics. As a mercurial, the author employs very minute doses (from $\frac{1}{64}$ to $\frac{1}{8}$ of a grain) of the Niger Moscati and Hahnemanni, which, while it suffices for the cure, does not irritate the alimentary canal; but he prefers the use of iodine, which, however, as it has to be exhibited in larger doses, may cause the disturbance of the digestive organs. It is most suitable when these are in a restored state, and in the older children. He gives two grains of iod. pot. per diem, in a syrupy vehicle, protecting the bowels from irritation by pulv. rhei, pulv. Doveri, or ereta ppt. Externally, he employs red precipitate ointment (2 to 8 grains ad ʒij.), or solution of corrosive sublimate (1 or 2 grains ad ʒiv.); but only when the condition of the digestive organs prohibits internal treatment. Pot. iod. may be employed externally, in the proportions of 8 grains to ʒij. of lard, or 10 to 30 grains to ʒiv. water.

Wien Wochensch. No. XI.

EXCERPTA MINORA.

To make Leeches bite.—M. Avernier, when leeches take hold with difficulty, which is often the case in winter, strongly recommends a preliminary application of a sinapism to induce vascular congestion, carefully washing the surface afterwards. The leeches now take freely, and more bleeding than usual follows their removal.—*Gaz. des Hôp.* No. 39.

Facial Neuralgia.—Dr. Deutsch states that during the last 10 years he has employed the following formula with remarkable success in cephalalgia, hemicrania, neurosis of the 5th pair, nervous tooth or earache. Quin. sulph. dissolved in spirits of wine gr. xii. ferri. oxydul. carb. gr. xii.-xxiv. succ. liquirit. 9.8. In pil. 24, taking one or two every hour.

Berlin Zeitung. No. 13.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

Paris, September 16, 1856.

The great discovery of Dr. Thomas Addison is now exciting public attention to a great degree in Paris. There are more believers in it here than would appear by the account of a late meeting at the Academy of Medicine. It is the fate of Academies to be behind the times, and this is peculiarly the case with the Académie Imperiale de Médecine. But if discoveries are long before being admitted by the venerable members of this learned body, it is not so generally with the Medical Profession in France. If some of the journalists have been hypercritical as regards the views of Dr. Addison, there have been many articles published in almost all the Medical journals of Paris, in which an eulogistic and accurate appreciation has been given of the doctrine of the correlation of bronzed skin with diseases of the supra-renal capsules. For instance, very good articles have been published by M. Laségue in the *Archives* and M. Tholozan in the *Gazette Médicale;* four or five cases of bronzed skin with extensive disease of the supra-renal glands have been published here, and in some of them the diagnosis of a disease of these organs had been made out as probable some time before death. The most interesting of these cases has been communicated to the Académie de Médecine by Professor Trousseau. There was no organ altered in this case except the supra-renal capsules. M. Bouillaud said that he did not discover any importance in this case. He had learnt that the patient was a mean man, who used to starve himself to save his money, and, therefore, he (M. Bouillaud) thought that this man had died from insufficiency of food and not from the disease of the supra-renal capsules! It is not necessary to reply to such an argument.

M. Gibert said, he was very unwilling to admit new and extraordinary facts, coming from strange countries. He expressed a degree of surprise, amounting to incredulity, at this fact, that one Physician had been able to collect so many observations of bronzed skin as Dr. Addison had. The reply of M. Trousseau was much to the point. He reminded the Academy of the admirable researches of Dr. Bright on the diseases of the kidney, and he adduced good reasons for giving credit to the assertions of Dr. Addison.

At the Société de Biologie many discussions have taken place on the questions connected with the diseases of the supra-renal capsules, and the majority of the members seem to have admitted the connexion between bronzed skin and these diseases. An analysis of the cases collected by Mr. Hutchinson, and published in the *Medical Times and Gazette*, has been given to this Society by Dr. Brown-Séquard, and the forcible manner in which Mr. Hutchinson has presented the argument has produced conviction in many minds.

In one or two of our preceding letters, we have given a short summary of Dr. Brown-Séquard's researches relative to the supra-renal capsules. We shall merely point out now the most recent results arrived at by this Physiologist. In two communications, at the Académie des Sciences, he states:—1. That the supra-renal capsules are very sensitive. 2. That they are not organs belonging, either exclusively or principally, to the embryonal life, as they grow notably after birth, and relatively as much, in many animals, as the kidneys. 3. That the extirpation of the supra-renal glands, in living animals, seems to be always and very quickly followed by death. 4. That the adult animals die much sooner after this operation than the very young ones. 5. That, even after the extirpation of only one of the supra-renal capsules, death has been a constant result, but much later than when the two capsules have been taken away. 6. That death, after the extirpation of the two capsules, cannot be considered as the consequence of the injury to the peritoneum, to the liver, to the kidneys, or to the sympathetic nerve; and, therefore, that the principal cause of death results from the absence of the capsules. 7. That there is a very common disease in rabbits, which seems constantly to cause death, and which consists in an inflammation of the supra-renal capsules. 8. That the symptoms of this disease are mostly the same as those which exist in animals after the extirpation of these glands, and that these symptoms resemble those observed first by Addison in man, in cases of bronzed skin, with the exception of the deposition of pigment in the skin. 9. That the irritation of the sympathetic nervous system has a share in the production of these symptoms, and also in the causes of death. 10. That the principal cause of death is an alteration in the blood, when the supra-renal capsules have been taken away, or when they are so altered that there is a cessation of their functions.

Dr. Brown-Séquard draws the three following conclusions from the facts he has ascertained:—1. That the supra-renal capsules seem to be essential to life; 2. That the extirpation of these organs generally produces death more quickly than the extirpation of the kidneys; 3. That the supra-renal capsules have with the cerebro-spinal nervous centres many relations of reciprocal influence.

Besides these results of his researches, Dr. Brown-Séquard has announced at the Société de Biologie that he has found pigment-granules and pigment-cells in the blood of animals after the extirpation of the supra-renal capsules. He believes that one of the functions of these glands is to destroy or transform pigmentary substances. He grounds this view on many facts—1. Deposition of pigment in the skin in cases of considerable alteration of the supra-renal capsules in man; 2. Presence of a notable quantity of pigment in the blood of animals after the extirpation of these glands; 3. Very small size of the supra-renal capsules in albino rabbits, and great development of these glands in negroes.

M. Gratiolet wrote to the Académie des Sciences, after the first communication of Dr. Brown-Séquard, to say that he had seen guinea-pigs recovering after the extirpation of one of the supra-renal capsules. He says, also, that the capsule of the left side may be taken away without danger to the life of the animal, but that that of the right side cannot be extirpated without such an injury to the liver and peritoneum that the animal dies from peritonitis and hepatitis. Dr. Brown-Séquard answered that animals having lost their two supra-renal capsules, die long before the time at which peritonitis and inflammation of the liver or the kidney might have been sufficiently advanced and extended to cause death, and that in cases where almost every kind of mechanical injury has been done to the peritoneum in animals, life, as Blundell had shown long ago, may be preserved, and if not, it is at a much later period than after the extirpation of the capsules that death takes place.

A paper presented to the Académie des Sciences by M. Oré, has given an opportunity to Professor Andral of speaking of a curious case. A man who was diabetic, and in whom, therefore, the functional activity of the liver was not lost, but, on the contrary, much increased, had the vena portæ obliterated. This fact proves, like the experiments of M. Oré, that the secretion of sugar by the liver does not depend upon the portal blood.

Paris, September 28th.

P.S.—In addition to the facts before related about the supra-renal capsules, we have to mention some more recent communications which have been made at the Académie des Sciences, and at the Société de Biologie. A M. Pusch announces, that he has collected cases proving—1st. That bronzed skin may appear and disappear, and that it may exist without any alteration of the supra-renal capsules. 2nd. That the supra-renal capsules may be diseased without any bronzing of the skin. 3rd. That the facts recorded by Dr. T. Addison are mere coincidences of two things, which have no relation one with the other (*i.e.*, bronzed skin and alteration of the capsules). As M. Pusch has not yet published the cases upon which he grounds these conclusions, we will merely say, at present, that he seems to be ignorant of what has been published by Dr. Addison and by Mr. Hutchinson upon the subject he speaks of.

M. Vulpian has found, that the supra-renal capsules differ from all the other organs in the body by the presence of a substance which has two peculiar reactions, one with perchloride of iron, and the other with tincture of iodine. The first of these tests gives a dark bluish colour with the capsules; and the second a rose colour. Dr. Brown-Séquard has shown that it is the medullary part of the capsules which has the property of acting upon the perchloride of iron. M. Vulpian thinks, that the substance which gives a dark-bluish or a rose colour with the two tests we have mentioned is a product of secretion of the supra-renal capsules; and he grounds this opinion upon the fact, that the blood of the veins

of these glands has the same reactions as their tissue with these tests, and contains, therefore, the same substance.

An interesting discovery, made by M. H. Blot, was communicated yesterday and at the previous meeting of the Société de Biologie. M. Blot has found that sugar exists constantly in the urine of nursing women, and frequently in that of women during the last months of pregnancy. He has not yet ascertained whether it is milk or grape sugar which then exists in the urine.

PROVINCIAL CORRESPONDENCE.

IRELAND.

[From our Dublin Correspondent.]

DUBLIN, SEPTEMBER 29, 1856.

GENERAL satisfaction is felt as to the constitution of the Board of Superintendence of the Dublin Hospitals just appointed by the Lord-Lieutenant, under the provisions of the Act of last session. Composed, in part, of citizens who have always been foremost in every patriotic and benevolent project, in part of Medical men long connected with these valuable institutions, and deeply interested in the maintenance of their efficiency, the new Board, so judiciously and impartially selected, affords a guarantee that the welfare of the sick poor will be strictly looked after, and that the interests of the Irish School of Medicine will not be lost sight of. The members of the Board are, Lord Talbot de Malahide, the Lord Chief Justice of the Common Pleas, Sir Philip Crampton, George A. Hamilton, Esq., M.P.; Dr. Johnson, Dr. Stokes, Dr. Corrigan, Dr. Cusack; Mr. Jonathan Pim, Mr. George Roe, Mr. Richard Kelly, and Mr. Thomas Hutton.

Considerable changes have taken place among the Medical and Surgical officers of Dr. Steevens's Hospital. Sir Henry Marsh having become "Visiting Physician," has been succeeded as Physician by Dr. Croker. Drs. H. Freke and W. M. Burke have been appointed Assistant-Physicians. Dr. Cusack has become one of the "Visiting Surgeons," in the room of Mr. Peile, resigned, and has been succeeded as one of the Assistant-Surgeons by Dr. Harrison, Professor of Anatomy and Physiology in Trinity College.

It is in contemplation to build fever-wards in connexion with the Hospital, in compliance with the recommendation of the "Commissioners for inquiring into the condition and regulation of Dublin Hospitals."

Eight gentlemen have recently passed the examination for the degree of M.D. in the Queen's University. The degrees will be conferred on the 7th of October.

Dr. Montgomery has resigned the Professorship of Midwifery in the School of Physic in Ireland, which he has for the long space of twenty-nine years so ably filled. Peculiarly happy in his style, his lectures were always most attractive to the students, to whom attendance on them was a recreation, not a task, so completely was the learned Professor master of the art of blending the useful with the agreeable.

A Supplement to the Pharmacopœia of 1850 has been issued by the College of Physicians in Ireland, directing that all medicines intended for external use should be dispensed in angular vessels, and that the more active and poisonous preparations and articles of the Materia Medica, shall be kept and sold in similar bottles or vessels, while those intended for internal use shall be dispensed in round bottles or vessels, and also the less active simples and compounds kept and sold in round vessels, the intention being, that the touch alone may be sufficient to distinguish vessels containing articles possessed of dangerous qualities.

The fifth and concluding part of the Census of Ireland for 1851, containing the Tables of Deaths, has just been published. The first volume of this part, comprising the Report, the tables of pestilences, and the analysis of the tables of deaths, the work, I believe, chiefly of Mr. Wilde, is a monument of editorial industry, and presents an amount of information on the Medical, social, and cosmical history of Ireland, far greater than was hitherto believed to be within our reach. The value of the main portion of the work is also greatly enhanced by collation with the column of contemporaneous epidemics, containing a history of the various pestilences which have from time to time ravaged the several countries of Europe, as well as of many other matters of interest more or less directly connected with the subject of the volume.

The evil effects of competition in promoting adulteration were brought to light during the last session of Parliament, in the inquiry carried on by the Select Committee of the House of Commons on the adulteration of food, drinks, and drugs. This subject was, however, so strongly illustrated in an "accepted tender" for the supply of drugs to a Government institution, which I had last week the opportunity of perusing, that I am induced to select from it a few instances as specimens of the gross imposition practised upon the Government and the country, under the system of supply by tender, as well as in demonstration of the fearful disregard of human life manifested in the systematic adulteration of articles, on the purity of which depends, in a great measure, the Physician's power to rescue from death, to combat disease, and to restore health. The first class of medicines which caught my eye was that of tinctures, which were contracted for at 10d. per pound. Now, tinctures are directed to be prepared with at least proof spirit, the first cost of which is 1s. per pound. In this instance the contractor not only supplies the spirit at a loss, but generously gives, gratuitously, his time and labour, and the drugs which enter into the composition of the tinctures, while he takes no account of the great loss produced during digestion and filtration by imbibition and evaporation. Pale bark is supplied at 1s. 3d. per pound, while the powdered article, produced at an expenditure of time and labour, and subject to diminution during the processes of powdering and sifting is charged but 10d. Is the difference of 50 per cent. in favour of the more expensive article to be attributed to the patriotism of the contractor, or is it not rather to be looked upon as a premium gladly paid by him for the greater facility of adulterating a powdered than an unpowdered substance. It should be observed that the first cost cash price of genuine bark varies in the London market from 2s. 6d. to 3s. per pound.

On the other hand, aromatic spirit of ammonia, which is very little more expensive than tinctures, and which is usually sold by respectable druggists at about the same price as these preparations, not appearing in the tender, was furnished to the institution I allude to by the same party who supplied the other drugs by contract, at four shillings and sixpence per pound, about double the price for which it could be purchased from any respectable wholesale druggist. It would be easy to extend the list on both sides, but the foregoing is sufficient to show that no trader, willing to send in an honest tender, can compete with the dishonest tricks which are too commonly practised. As the imposition appears to be carried on under a twofold shape, the remedy, if the system of supply by tender be continued, should also be of a twofold nature. In the first place, the tender should comprise every article which could possibly be required; that is, it should, in the case of drugs, be a copy of the index of the Pharmacopœia, with the addition of such drugs, not in the index, as are to be found in the authorized list of the "Materia Medica;" and, secondly, the articles supplied to public institutions should be subject to frequent and rigid inspection by officers appointed for the purpose, who should be competent to use the microscope and other means by which modern science has facilitated the detection of adulteration.

GENERAL CORRESPONDENCE.

ROYAL MEDICAL BENEVOLENT COLLEGE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Mr. Cattlin's letters to the Bishop of Winchester, as Visitor of the College, together with others from Life-Governors, have not surprised me. In consequence of the resolutions passed at the meeting held the 11th of August, "That £40, instead of £30, per annum should in future be charged for each exhibitioner," I was desirous of ascertaining upon what data the Managing Committee based their calculations, so as to render it necessary to make the alteration, and on the 30th of August I addressed the accompanying queries, and received a courteous, but not very satisfactory, reply, stating that they could not undertake to answer them. I must confess, in my humble opinion, the Council are breaking faith with the public and Profession, for, with the view of

enlisting the sympathies of the public in behalf of the Institution, they distinctly and unequivocally state in their addresses, *past* and *present*, that the funds collected are to provide—

1st. An asylum for Medical men and their widows.

2nd. A school for the sons of Medical men, three-fourths of whom are to be exhibitioners, at £30 per annum, the remainder to be foundation-scholars, etc.

The above, to my mind, includes both classes of boys, and consequently each respectively "applicable to the charitable objects of the Institution." From the great dissatisfaction existing, I hope the Council will call a special general meeting at an early date, to re-consider the several resolutions passed on the 11th of August, that they may be again discussed, and the course adopted that may be best for the general interests of the College, immediate and prospective. I am decidedly of opinion that the educational department should be self-supporting, and I think there would be no great difficulty in proving, under management, that that might be done, and well done, at the annual charge of £30 for each scholar. By thus acting, the Council would enhance the value of this noble institution, and while fulfilling their pledge to the public, they would be conferring a real boon upon (to use the Council's own words) "those lesser lights who humbly, earnestly, truthfully, and unselfishly study to benefit their race by the diffusion of the blessings revealed by science."

I am, &c.

Roger Turner,

Honorary Local Secretary for Petworth.

Petworth, September 29, 1856.

Questions addressed to Mr. Freeman, Secretary, Royal Medical Benevolent College, for the year ending 1855.

1. Total number of masters residing in the College, and amount of their salaries?
2. Total number of servants residing in the College, and gross amount of salaries?
3. Total number of inmates of the establishment (including Masters' pupils and servants) *victualled* in the year 1855.
4. The cost of coal, wood, soap, oil, candles, gas, and the like, in the educational department?
5. Printing, stationery, and school books?
6. Laundry expenses?
7. Sundry and incidental expenses (comprising prizes, books, and medals, examiners' fees, pupils' hair-cutting, postages, etc. etc.,) properly belonging to the educational department?
8. Other charges, not enumerated above, and ought to be included in the educational department?

Petworth, August 30, 1856.

Copy in reply.

September 8, 1856.

Sir,—I am directed by the Managing Committee to say, that they cannot undertake to prepare such returns as you call for; they will allow the account books of the College to be open to your inspection, if you wish it, or, if you would like to have a conference with them on the subject, I am to say that the Committee meet every Friday at four o'clock, and will be happy to see you, and give you all the information in their power.

I am, Sir,

Your obedient servant,

Robert Freeman, Secretary.

Roger Turner, Esq.

"A NEW FORM OF RETRACTOR FOR USE IN EXCISIONS OF JOINTS, Etc."

[To the Editor of the Medical Times and Gazette.]

Sir,—There is a letter from the instrument maker to the Borough hospitals in your last number, which calls for a notice from me. It is there stated, that an instrument intended for use as a director, in cases in which deeply placed bones require to be sawn through, and described by me in your pages as "novel," had for long been employed at Guy's and St. Thomas.' I called at once on Mr. Bigg, and requested to be shown the instrument. The one which he produced is a simple bent director, without a handle, and one which would be most inconvenient in use. It would be, I doubt not, in the first place, most difficult of adaptation; when inserted, it could not be held steady, and the operator, in sawing upon it, could scarcely avoid cutting his own thumb. It differs in this most important particular from the one introduced from Paris, and described by me. An assertion in the same letter, that Butcher's saw has superseded all directors of this class is so absurd as not to need notice. Butcher's saw (a very excellent one for certain purposes, and one which I have repeatedly used) requires, in order to work free of the soft parts, when made to cut from above downwards, just as much protection of the latter, as when a common saw is used. When made to cut from below upwards, it requires yet more, by the depth of its own blade. To give this protection is the sole intention of the instrument referred to. When I called it "New," I meant "new in England." Mr. Spencer Wells has informed me, that it has been in use in the schools of Paris for many years, he having employed it there in 1845.

I am, &c.

The Describer of a "New Form of Retractor."

DR. MUSPRATT ON PORT WINES.

[To the Editor of the Medical Times and Gazette.]

Sir,—For the last two months, owing to the frightful and injurious adulterations taking place daily in port wines, I have turned my attention to the subject, and before long I intend to publish several startling facts, which I trust may have a beneficial effect in preventing these nefarious practices. My object at present in addressing you is with regard to the amount of alcohol that *can be contained in genuine port.*

I believe all chemists will admit that in the formation of port the largest amount of spirit that can be produced is eighteen per cent., certainly it never reaches more than nineteen per cent. If this be the case, how is it that in all the "Manuals of Chemistry," the quantity of alcohol placed opposite port wine is from twenty-four to twenty-six per cent.? This cannot be correct unless the portions analysed had been fortified with spirit. Through the kindness of Messrs. Chillingworth and Son, (Wine Merchants to Her Majesty) of London, I have received sample bottles of port, vintages 1820 and 1834,—superb wines they were, and they afforded the annexed results:—

Vintage 1820—Specific gravity . . . 0·9945
ditto of distillate . . 0·9740

	Centesimally.
Alcohol	18·01
Fixed matter	5·14
Water and ethereal products, &c. . .	76·85
	100·00

Vintage 1834—Specific gravity . . . 1·0165
ditto of distillate. . . 0·9724

	Centesimally.
Alcohol	18·970
Fixed Matter . . .	5·978
Water, &c.	75·052
	100·000

I found in the 1834 port more tannin than in the 1820, which imparted to it a greater degree of astringency. The aroma possessed by the 1820 wine was exceedingly fine, owing of course to the acetic, butyric, caproic, and especially œnanthic ether which it contained. The bouquet of this wine was so marked that the œnanthic ether, which is the cause of that peculiar odour which belongs to all wine, could be perceived days after in the bottle whence the wine had been decanted.

By giving a place in your valuable Journal to the above analyses accompanying my few general remarks, you may interest some of your readers.

I am, &c.,

Sheridan Muspratt F.R.S.,

Professor of Chemistry.

College of Chemistry, Liverpool, Sept. 23, 1856.

MR. KESTEVEN ON ENDOCARDITIS.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a late Number of your Journal (Sept. 6), there is an interesting letter from Mr. Kesteven, of Upper Holloway, in which that gentleman has drawn up a succinct account of the

several periods at which the existence of a "bruit," or "souffle," in the early stages of endocarditis has been noticed by various individuals. The object Mr. Kesteven appears to have in view is to set before your readers that, so far from M. Bouilland being allowed to lay claim to the discovery of the plove sign, as some have asserted, our own countryman, Dr. Latham, was the first person to observe and publish the fact, which he did seven years before M. Bouilland's work appeared. Dr. Latham's "Pathological Essays on Some Diseases of the Heart" were delivered at the College of Physicians in 1828, and M. Bouilland's work did not appear until 1835.

Permit me to add a few remarks to those already made by Mr. Kesteven, in corroboration of that gentleman's views on this subject. During the years 1830-31, I held the office of Clinical Clerk to Dr. Latham at St. Bartholomew's Hospital, and I was often privileged to hear him teach that in all cases of pericarditis there was (as he then believed) a simultaneous inflammation of the endocardium (a), and that the latter disease was recognizable at a very early period by the physical sign of a "bruit," or "souffle," attending the systolic action, This auscultatory evidence of endocarditis was received and known as an established fact at the period I allude to, and it was based on the experience of many cases which occurred both before and during my pupilage.

Soon after my election to the Middlesex Hospital, in the autumn of 1851, I found that these views were but imperfectly understood by the pupils at the West-end, and wholly rejected by some Practitioners as delusive; but Dr. Watson had been led to adopt and teach his friend Dr. Latham's discoveries in this branch of Pathology, and subsequent writers have confirmed the correctness of Dr. Latham's original opinions on this subject. I would maintain, then, with Mr. Kesteven, that to Dr. Latham is due the merit of having first pointed out the existence of a "bruit," or "whiff," in the early stages of endocarditis, while Drs. Watson and Stokes in 1837 first drew the attention of the Profession to the frequent occurrence of "a to-and-fro sound" in acute pericarditis.

I am, &c. George Corfe, M.D.

59, Berners-street, Middlesex Hospital,
September 20, 1856.

P.S. Since writing the above letter, I have looked over my early record of medical cases which occurred in the wards of St. Bartholomew's and the Middlesex Hospitals, and I find an instance of acute rheumatism under Dr. Latham, in April, 1831, in a lad aged 19, where a "bruissement" was heard with the first contraction of the heart. The case was fatal.

A second fatal one in January, 1832, in the Middlesex Hospital, under Dr. Watson, where a distinct "craquement de cuir" (new leather-sound), was heard with the heart's action. A third in June, 1832, at the same Hospital, in which a distinct "bruit de scie," or sawing "to-and-fro" sound, and a "bruit de soufflet," or "puff," on the cessation of the former sound. This case was discharged relieved.

In another case, which is recorded in January, 1833, and which proved fatal, a "bruit de soufflet" at the onset of the attack was detected, and a diagnosis based on the above physical sign was subsequently made and entered in the case-book, thus:—

"Universal adhesion of the pericardium, and hypertrophy of the left cavities," the result of acute endocarditis existing simultaneously with pericarditis. I would observe, that, in the fatal cases, the post-mortem appearances thoroughly corroborated the accuracy of the diagnostic symptoms as evidences of acute endo- and exo-carditis. It may be observed, that so far was the Profession disinclined to receive Dr. Latham's views on the subject, that we find Dr. Elliotson disclaiming them in a Clinical Lecture delivered in January, 1831, and published in the *Medical Gazette*, page 648. Dr. Elliotson there repudiates the notion that pericarditis can be detected by auscultation. His words are, "Auscultation appears to me, however, of negative use." . . . "The whole heart is acting with a clearer sound than in health, but this is all." Dr. Elliotson repeats these assertions in a Lecture on Pericarditis in June, 1833, *Medical Gazette*, page 310.

I addressed a letter to that Journal, November 15, 1834, in which I stated that I had then witnessed 400 cases of acute rheumatism, and that whenever a "bruit" was heard with the heart's systole, endocarditis was invariably set up, while the existence of a "to-and-fro" sound always indicated acute exocarditis. Dr. Watson recorded his opinions on the latter pathological sign as indicative of pericarditis, in a Clinical Lecture on a case which occurred in these wards in 1833. The Lecture was also published in the *Medical Gazette* of that year.

(a) You are aware, Sir, that Dr. Latham has modified this assertion in his work on "Diseases of the Heart."

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of Medicine, and received certificates to practise, on Thursday, September 18, 1856:—

Bury, George W. Fleetwood, Whetstone, Middlesex.
Cornish, Samuel Henry, Exeter.
Hatherly, Narcissus Collins, Plymouth.
Hunter, Charles.
Jones, Edwin, Flintshire.
Mead, Elisha Preston, Whitby.
Pugh, John Lister Pool, Halifax, Yorkshire.
Riddell, Andrew Nesbitt Edwards, East Indies.
Traer, James Reeves, Exeter.

Also, on September 25,—

Fitzpatrick, Bernard, Clones, Ireland.
Murray, Charles, Oldham.
Orford, Frederick James, Ipswich.
Turner, Edward William, Deddington, Oxon.
Walker, Thomas Houghton, Dublin.
Withrington, John, Blackburn.

DEATHS.

Camps.—At his residence, Fenny Stratford, Bucks, September 16, T. Camps, Esq., aged 55, formerly of Berkhampstead. In his Medical practice—indeed in all his practice—he joined a touching kindliness of manners with a delicate conscientiousness, deep and lively feeling for all the modes of human suffering. a wide-spread benevolence with great liberality, exercised during his life upon numerous individual objects rather than centred upon masses. Himself unmarried, he loved childhood, and children loved him. He loved the poor and lowly, and chose his later residence in an obscure neighbourhood in order to be amongst them, and administer to their weakness. The labours of the busy day done up to the hour, the offices of charity prepared for even by anticipation, his death was momentary, seated at the domestic table with his papers before him, in the quietude of the evening hour. It may be a satisfaction to those who read this brief notice of a life of usefulness, as well as to those friends who knew him personally, also to know that the summons to a better world, momentary as it was, found him not unprepared, but was clearly foreseen by himself, although the hour and the manner of it was hidden from all previous observation. He communicated to several of the most distinguished members of his Profession observations new to them, which they tested, approved, and used, and he was the writer of an able article in the *Medical and Chirurgical Review* for 1854. He was interred in the burial ground of the Society of Friends, at Woburn Sands, among his forefathers of several generations.

Malcolm.—We deeply regret to announce the death of Dr. A. G. Malcolm, one of the most distinguished provincial Physicians in Ireland. After graduating in Edinburgh in 1842, he settled in Belfast, where he soon attained a high position. At the time of his death, which occurred from disease of the heart, he was Physician to the Belfast General Hospital, and Vice-president of the Belfast Clinical and Pathological Society, of which he had been president during the past session. He had also just been appointed to deliver a course of lectures on Pathology in the Queen's College in that town. He was the author of several valuable contributions to Medicine, published in the periodicals both of England and Ireland, and also of several reviews in the *Dublin Quarterly Journal*. He died at Rathmines, in the vicinity of Dublin, on Friday morning, 19th September, at the early age of 36.

MACHELL.—Sept. 3, in his 76th year, Thomas Machell, Esq., Surgeon, formerly of Walsingham and Berners-street, M.R.C.S.E. 1816, author of several scientific inventions.

ROSS.—At Funchal, Madeira, a week after his return to labour among the sufferers from Cholera, Archibald C. Ross, Esq., M.D. aged 47.

APPOINTMENTS.

BERMONDSEY.—Mr. H. Cuolahan has been elected to the office of Surgeon to the Bermondsey Workhouse, vice Dr. Paul resigned.

Dr. P. B. Ayres, Lecturer on Materia Medica at the Grosvenor-place School of Medicine, has obtained the appointment of Superintendent of the Quarantine Establishment at the Mauritius. His chair has not been filled up.

BIRTH.—We are requested to announce the following:—On the 20th ult., at 6, Barnsbury-place, Upper-street, Islington, the wife of J. H. Buxton, Esq., Surgeon, of a daughter.

The library and museum of the College of Surgeons, reopened on Wednesday.

Professor Owen is about to deliver two lectures in the Government Schools, Jermyn St., on the fossil remains in the British Museum.

A NURSE, aged 35 years, died in Greenwich, of "inflammation of the œsophagus (5 weeks), with œdema of the trachea (1 week)," on 21st September. Her Medical attendant, Mr. Shute, states that her mistress and two children caught the disease at Boulogne, and were removed to Folkestone, where they died. She took the complaint when in attendance on them.

PURIFICATION OF THE THAMES.—Mr. Nicholay has submitted to the Board of Works a proposition of Mr. J. R. M'Lean, civil engineer, Great George Street, for the purification of the Thames, and the utilisation of the sewage as manure. His proposition was to do away with the main drainage sewers and reservoirs on both sides of the Thames, and to construct a conduit capable of conveying the whole sewage of the metropolis from the pumping station at West Ham, passing through the agricultural districts of Essex to a point on the sea-shore between the estuaries of the Crouch and the Blackwater, this conduit to be made available for the purposes of sewage irrigation throughout its entire length, until it reached the German Ocean. The sewage of the whole of the southern district might be collected at a pumping station near Southwark-bridge, and be carried by means of pipes (two feet six inches in diameter) over the river to the Aldgate sewer, through which it would flow to the proposed main conduit. The expenditure for this work from West Ham to the outfall would not exceed £1,600,000. Mr. Nicholay concluded by introducing Mr. M'Lean to the Board, by whom he was asked several questions relative to his scheme. He stated that the sewer proposed by him would be forty-two miles long, of which twenty-six miles would be covered and sixteen miles uncovered. The fall of the proposed sewer would be five inches per mile, and the greatest width of the covered part twenty-four feet in diameter. The pumping station at Southwark Bridge would not be in the slightest degree offensive to the inhabitants of that district.

THE CATHOLIC UNIVERSITY OF IRELAND.—A reference to our advertising columns will show that the staff of the Medical Faculty of the above Institution is now complete, and that it embraces the names of several gentlemen already well known as able lecturers, or as distinguished by their labours in the advancement of Medical science. The opening lecture will be delivered on Monday, the 3rd of November, by Dr. Lyons, whose appointment to the Chair of Physic we announced a few weeks ago.

CHOLERA IN MADEIRA.—Extract from a private letter from Madeira,, Sept. 13, 1856 :—"It is very probable that the disease will still run its course through these populous districts, and I, for one, am far from thinking that its work is done. Most people have returned to town, where the disease is really nearly extinct, and there have been no deaths in the hospital for above a week. We had two new cases here yesterday, but nothing personal to ourselves. For the convalescents, who are very weak, you may imagine what a boon will be the tea, sago, &c., sent by the benevolence of our friends in England, whom may God bless for their shower of manna in the desert. Dr. M'William knows his business, snd has exactly hit the necessities of the case. It is true that the demand for physic has diminished, but the stocks of the druggists are exhausted, and it is a great mercy to have it ready for the straggling cases and partial return, which may be expected after the rains. If anything more come, let it be in money. Thatching houses, clean straw for bedding, etc., are essential, also warm clothing; not that anything comes amiss."

SALISBURY INFIRMARY.—The following is a copy of a minute made at the annual court of Governors of the Salisbury Infirmary:—"Resolved, That, in consideration of his past services, Dr. Finch be, and he is hereby, elected a Consulting Physician to this Infirmary.—Salisbury Infirmary, August 30, 1856. (Signed)—CHARLES H. RADCLIFFE, Secretary.

VERDICT OF MANSLAUGHTER AGAINST A PROFESSED SURGEON.—An adjourned inquest (which was opened on Saturday), on the body of Hannah Newton, wife of a shopkeeper in Barton-upon Irweil, was held on Monday, at the Bird-in-hand public-house there, before Mr. Rutter, county coroner, and a verdict of manslaughter returned against Edmund Astle, who represents himself to be a surgeon and M.D. of Aberdeen University, and who has been practising as such in Patricroft for the last eighteen months, for having caused the death of Mrs. Newton by his carelessness or incompetency. The circumstances of the case are of a very painful character. Deceased was 41 years of age, and was the mother of 17 children, 9 of whom are living. On Wednesday last she was again confined, and Mrs Wilcock, who has been practising as a midwife for 24 years, was called in. On examination, she declined undertaking the case herself, and Mr. Astle was sent for. He arrived between three and four, and remained till dusk, doing, as he said, all he could, and keeping Mrs. Newton in the greatest agony, but without effecting the delivery of the child. He used no instruments; only his hands. At last, he said he could not do it, and when he left the poor woman was no nearer delivery than when he came. The nurse, as he was going away, asked what was to be done, and his reply was that he had other people to attend, and that he must attend to them as well as to her. She asked again, and he said, "Nature must do it." She replied that nature must be helped; and to this he only answered, "You are here, you can do it as well as me." On coming down stairs, Mr. Astle was met by the husband, who said, "Well, can you do anything for her?" He said, "I cannot; it must be nature that can do it; nothing else can do it." The husband answered, "That will not do for me; can you do anything for her or not?" He said, "I cannot." The husband then said that he must look after somebody else that could do it; and with that Astle left, without saying anything more. The husband then went upstairs and spoke to deceased, and she said, "That man has murdered me; he has murdered me." Mr. Roe, surgeon, of Eccles, was then sent for, and whilst he was in the house, Astle came back. The husband said to him, "What are you wanting again?" He replied, "I must see the job out, as I commenced it." To this the husband objected; and then Astle said, "Well, I shall look for payment whether I go up or not." The husband said, "Very well," and Astle then left. Mr. Roe, finding deceased in a very bad state, requested the assistance of Mr. Welsh, of Eccles. These two medical gentlemen then succeeded in delivering Mrs. Newton of a still-born child, but the poor woman died during the night of Thursday. Astle called on Thursday evening, and asked the husband how Mrs. Newton was. The husband replied that she was living, but that was all; and Astle then said, "I have no doubt if I had been allowed to attend, she would have been right." He offered to come again, but the husband said he had no need. Mr. Roe and Mr. Welsh, in their evidence, described fully the state in which they found Mrs. Newton at the time when they were first called, and the result of their subsequent examination of the body; and they coincided in the opinion that deceased had come by her death in consequence of injury (a rupture five or six inches long) to the soft parts of the vagina, caused by force, such force being improper and unnecessary. Mr. Welsh added that the injury must have been done by a hand forcibly thrust up into the parts; and that it could not have been produced by natural causes.—Mr. Roe stated that Astle had no diploma from Aberdeen University; and Mr. Welsh said the name did not occur in the list of Medical Practitioners in his

"London and Provincial Medical Directory;" but he found in the list of those who had not given any return of the nature of their qualifications, "Astle—Rainford, Lancashire."—Dr. Clay, of Piccadilly, Manchester, was called for the defence. The result of his evidence was merely that such a rupture as that of which deceased died was of occasional occurrence; but he had to admit, on cross-examination, that it was of rare occurrence in the hands of practitioners, though it might occur by the use of instruments.—The jury returned a verdict of "Manslaughter" against Edmund Astle, and he was committed for trial at the assizes.

Another Illustration.—On Wednesday, at the Thames Police Court, Mrs. Elizabeth Ann Hopkinson, aged 20, the wife of a Chemist and Druggist, carrying on business at No. 85, Broad-street, Ratcliff, was brought before Mr. Yardley, charged with attempting self-destruction by swallowing a large quantity of tincture of opium. She was admitted into the London Hospital, on Monday, September 22, labouring under the effects of poison. The stomach-pump was applied, and some poison dislodged from her stomach. She had been under Medical treatment until Tuesday afternoon, when she left the hospital, and was in a state of great suffering for several days. Prisoner gave as a reason why she attempted to destroy herself, that a woman persuaded her to do so, and that she was very unhappy at home. Mr. Burch, House-Surgeon, wished it to go forth to the public that owing to the ready facility for obtaining narcotic drugs and other poisons, cases like these had been very numerous. There were now four persons in the Hospital under Medical treatment who had taken poison, and the Hospital authorities were determined that every case of the kind should be investigated before a magistrate.—Mr. Carson, Surgeon, of Cock-hill, Ratcliff, was called upon on Monday week to attend the prisoner, who was labouring under the effects of a powerful narcotic. He was informed she had taken some tincture of opium. She was in a comatose state; about three ounces of laudanum was dislodged from her stomach. Mr. Yardley—Three ounces, Sir! How did she obtain all that laudanum? Mr. Carson said that Mrs. Hopkinson obtained the laudanum from him, and he would state how it was. Mr. Hopkinson was his neighbour, and carried on the business of a chemist and druggist, and dispensed medicines. He had been in the practice of obliging Mr. Hopkinson with drugs, as he was in the trade. On the 22nd ult., he received a message from Mrs. Hopkinson that she was in want of tincture of opium for customers, and he sent her in a phial, properly wrapped up and sealed, one ounce and six drachms of the very best tincture of opium. There were forty innocent doses. That was calculated to destroy from six to ten lives. In answer to a question by Mr. Yardley, the witness said he had seen Mrs. Hopkinson in the shop more frequently than her husband. The prisoner said—I did not take it for the purpose of destroying myself. I did not think it would do me so much harm. Mr. Yardley—Then you are a most improper person to administer drugs. You did not know it would do you so much harm? Why, you took enough to kill six or ten persons, and would have been dead in a few minutes, but for the prompt and energetic means adopted for your recovery. You hear what your friend Mr. Carson says, that you are more frequently in the shop than your husband, and you dispense drugs, and do not understand the properties of them. The prisoner—Yes, it is the case. I am there more often than my husband. I serve out medicines. The husband, a little man, about 26 or 27 years of age, in a state bordering on delirium tremens, "very shaky," who could scarcely answer the magistrate's questions, said he had been away from home times and times. He went into the country. His business lay in the country, where his wife came from; in Derbyshire it was. He had a very large business. Mr. Yardley—You go into the country, and leave your wife, a young woman, to whom you have only been married twelve months, to dispense medicines and to sell poisons. Was there ever anything so monstrous as this? Here was a woman, profoundly ignorant of drugs, dispensing medicines. The husband, who scarcely knew what he said, declared that he did not allow his wife to sell poisons, and kept them away from her. He did not believe it. This very case proved the contrary. It appeared the woman sent for one ounce and six drachms of the best tincture of opium to sell in the business. That in itself was contradictory of the assertion that she never meddled with poisons. It was sent for to be sold in small quantities, no doubt, and the woman would probably have sold a large quantity if she had been asked for it, for she was ignorant that a large quantity of the most powerful tincture of opium that could be obtained was sufficient to destroy life. For aught he knew, persons might have been sacrificed by the drunkenness of the husband.

This case had assumed a most serious aspect. A drunkard, verging on delirium tremens, indulging in his own vicious propensities, left his wife to administer deadly drugs, and she took enough herself to destroy 10 persons. He would leave her to be told by her friends what her offence was in another point of view, and how deeply she ought to reflect on the folly and wickedness of the rash act she had committed.

Police Presentation to a Surgeon.—On Saturday last a deputation waited upon Mr. Wagstaffe, the divisional surgeon of police, for the purpose of presenting him with a splendid silver testimonial subscribed for by the sergeants and men. The testimonial consisted of a magnificently chased silver salver and two beautifully embossed silver and gilt spoons. The salver bore a suitable inscription, which set forth that the testimonial was presented to Matthew French Wagstaffe, Esq., of 10, Walcot-place West, Lambeth, by the officers of the L division of metropolitan police, as a mark of respect for his uniform kindness during their sickness, he having been their surgeon for twenty years.

The Medical Benevolent Fund.—It is with great pleasure that we look this year upon the great improvements made by the indefatigable officers of this noble Institution: we see that, by their charitable exertions, the donations during the comparatively short period of twenty-one years have been raised from, during the first year, £106 5s., which afterwards dwindled down to £8 2s., to (during the year 1853-4) upwards of £1000; and, although they have not since reached £700, yet we perceive that they, together with the subscriptions, are slowly but surely increasing. The number of cases benefited during the past year has amounted to 300; 74 have been relieved at a cost of £649, and eleven annuitants are permanently on the books of the fund. We are, however, extremely sorry to announce the retirement of the much-esteemed Treasurer, Mr. Newnham, from his ably-conducted office; but rejoice to find that a well-qualified substitute is procured in the person of Mr. Toynbee, who is nominally appointed to the office of Assistant-Treasurer, in order that Mr. Newnham's name should still appear as Treasurer, which now onerous post he has filled so well from the date of the Society's formation. Mr. Toynbee will, however, receive all communications, and will henceforth act inreality as Treasurer. We also congratulate the Society upon the acquisition of their now sole Honorary Secretary, Dr. James Bright.

Yellow Fever.—Several cases have been reported at New York.

York School of Medicine.—We omitted in our last to state that Mr. Oswald A. Moore will continue his course on Aural Surgery in the York Ear Institution during the present session.

Diarrhœa continues to decline, and under the present low temperature will soon fall to its minimum. It rose to its maximum in August, when the number of fatal cases in a week was 253. Last week the number was 72.

Mortality Notabilia.—The total number of deaths registered in London in the week that ended on Saturday was 1106. It shows a small increase on the returns of two previous weeks, because deaths in reference to which coroners' inquests have been held are entered in the register books, in more than their just weekly proportion, about the end of every quarter. This circumstance does not affect the comparison with corresponding weeks; and it may be stated that the present rate of mortality is quite as low as the average rate at the end of September, though the latter be reduced by excluding deaths from epidemic cholera in the years 1849 and 1854. The deaths referred to the zymotic class of diseases last week are 248, a number which is rather low, and supplies a favourable indication of the public health.

Births.—The births of 795 boys and 740 girls, 1535 children, were registered. Average, 1499.

Meteorology.—The mean height of the barometer in the week was 29·241 in. The mean temperature was 52·9°, which is 2° below the average of the same week in 38 years. The

ORIGINAL LECTURES.

LECTURES
ON THE
VARIETIES OF CONTINUED FEVER AND THEIR DISCRIMINATION.

DELIVERED AT

St. Thomas's Hospital.

By THOMAS B. PEACOCK, M.D.,
Assistant-Physician to St. Thomas's Hospital, etc.

Lecture VII.

GENERAL PRINCIPLES OF TREATMENT.

It was not my intention in these Lectures to have spoken of the treatment of the disease, but as the subject would be incomplete without some allusion to this point, I shall very briefly refer to the general principles which should guide us in our practice.

The first question which arises is, *can we arrest or cut short an attack of fever?* This question must be regarded as a purely practical one, to be decided by experimental investigation. We have sufficient proof that those forms of febrile affection which follow the most definite course—the eruptive fevers—may be cut short, as variola;—by vaccination, and, in some cases, by vaccination practised after the reccipt of the variolous contagion; and, though the cases are not precisely analogous, there seems no reason why similar results should not ensue from the employment of remedial agents;—and in typhus and typhoid, as well as in other forms of fever.

I. The means by which the arrest of fever has been attempted have been, 1st, Cold affusion; 2ndly, Remedies acting upon the secretions; and, 3rdly, Specific remedies.

1. At the time when Dr. Currie's work had attracted much attention, the plan of employing cold affusion was much had recourse to in the treatment of all forms of fever—more especially in the early stage—in the hope of arresting the progress of the disease, and there is reason to believe that the remedy was occasionally, at least, successful. The prostration of strength which it occasioned was, however, sometimes so serious, that the risk more than counterbalanced the advantage, and the practice was abandoned. Cold bathing is still, I believe, used by the hydropathic practitioners as a means of checking the course of fever, but I know not with what result.

2. Remedies which act upon the secretions have been employed for the arrest of fever, under the idea that as the subsidence of some forms of the disease is attended by so-called critical evacuations, such remedies may be the means of eliminating the poison from the system. Thus, as one of the most common symptoms which attends resolution in some forms of fever is profuse sweating, diaphoretics have been exhibited to promote perspiration, and so to bring about resolution. This is, however, an entirely erroneous view. In many cases the occurrence of sweats during fever, especially when only partial, so far from causing the subsidence of the disease, is followed by serious or even fatal prostration of strength. On the other hand, in cases in which the perspirations are most profuse, as in relapsing fever and sometimes in typhoid, the occurrence of the perspiration, so far from eliminating the poison, does not prevent the occurrence of the future paroxysms in the one case, or cut short the progress of the disease in the other. We can, therefore, only regard the occurrence of perspirations in these cases as indications of the resolution of the fever and not as its cause. Again, we sometimes see febrile attacks subside on the occurrence of spontaneous vomiting or purging; but it by no means follows, that the occurrence of these symptoms is the cause of the subsequent resolution; and even were sweating, vomiting, or purging proved to be the means by which nature endeavours to eliminate the poison from the system, it would still not follow that it is sound practice for us to imitate.

Of the remedies of this description upon which the most reliance has been placed as useful in arresting fever, emetics occupy the first place. It is quite possible, that, exhibited quite at the commencement of an attack of fever, before the chain of diseased action has been fully established, they may, by exciting powerful reaction, arrest the further progress of the disease. In the employment, however, of these remedies great caution should be exercised; the more depressing emetics, such as the tartarized antimony and James's Powder, are of very doubtful usefulness, at least in the low forms of fever which we are called upon to treat in this metropolis. They may excite irritability of stomach, which is often a troublesome symptom, as in relapsing fever, and which it may be difficult afterwards to check; or they may cause great depression, if given in cases which are attended with much prostration, as in typhus; or they may excite diarrhœa, if given in typhoid. The objections do not, however, apply to the milder emetics, as ipecacuanha, or, at least, not to the same extent.

In the exhibition of purgatives yet greater caution is needed. In typhoid, diarrhœa is often present from the commencement of the disease and at all times it is very prone to occur,—and active purgatives may excite very undue action; indeed, I have seen them give rise to uncontrollable diarrhœa and so occasion death. During the progress of typhoid it is always necessary to exercise the greatest caution in the exhibition of aperients; and in cases where the bowels have been confined for several days and where some interference becomes unavoidable, the action of mild aperients will sometimes prove injurious. In taking into consideration the propriety of having recourse to any of these remedies, with the view of cutting short an attack of fever, it must be borne in mind, that, at the commencement of an attack of fever, when only they could be exhibited with the probability of accomplishing that result, it is impossible to know what will be the character of the disease, and, consequently, to decide as to the special applicability of the remedy to be used.

3. Mercurials were much employed in the treatment of fever a few years ago, under the idea that they might destroy the poison existing in the system or assist its elimination; and also with the view of preventing what was regarded as a complication of the disease,—the inflammation and ulceration of the mucous glands of the intestines. It was even contended, that if the system could be brought under the influence of mercury, the patient always recovered. While, however, there is little doubt that in fever the influence of the mercurial remedies is resisted, there is no proof that, where the system is brought under their influence, they produce any beneficial effect; and, practically, their use has been almost abandoned, except for the relief of accidental complications of an inflammatory character.

4. The only remedy which has recently been regarded as possessing any specific power in arresting fever is bark, and especially its alkaloid, quinine. This power has been supposed to be exerted, when quinine is exhibited in large and frequently repeated doses, so as to produce a sedative operation on the nervous system, indicated by well-marked symptoms,—vertigo, headache, tinnitus aurium, and depression of the force and frequency of the heart and arteries. To this condition the term cinchonism has been applied. During the last autumn, I entered into an investigation of the claims of quinine thus exhibited to its asserted power of arresting fever. I found that the reports of the different Practitioners who had made trial of the remedy were so varied that they could not be referred to as affording any satisfactory rule of practice. In our own Hospital, I ascertained that of thirty-five cases of fever of all kinds treated during two years with quinine, in doses of 8 to 10 and 15 grains, repeated three, four, six, eight, and twelve times daily, the mortality was somewhat greater, and the duration of residence in Hospital of the cases which recovered was very nearly the same, as in the other cases of fever treated by the ordinary means. I further found that, in trying the remedy in large and frequently repeated doses, in particular cases of fever of ascertained character—typhus and typhoid—in some, while the physiological effects were fully manifested, no remedial influence was exerted; in others, the use of the remedy added greatly to the prostration of strength, and was obviously injurious; and in one only, out of five cases, did it exert any beneficial influence; and in that it operated only in assisting the favourable progress, not, certainly, in arresting the disease. From these facts I inferred that quinine, thus exhibited, did not possess the asserted power of arresting the progress of fever. An investigation of this kind is one of much difficulty; for it is evident that, if the remedy to be tested be not applied at the commencement of the disease, it

s not likely to check the progress of the attack; and, if so applied, as we cannot *à priori* with certainty ascertain the form of disease which is commencing, so we cannot decide, if the attack subsides rapidly, whether it has done so in obedience to the natural law of the disease, or as the effect of the remedy employed. We, consequently, are in many instances left in doubt as to whether the remedy has, or has not, proved beneficial. It is only by repeated trial and careful observation that we can arrive at a satisfactory conclusion.

Practically, in the treatment of fever, we may dismiss from our minds the endeavour to arrest the progress of the disease, and must be contented to *aim at conducting the cases to a successful issue*.

II. In this endeavour we should be guided by the principles so philosophically laid down by Dr. Alison. We must remember that the different forms of fever are dependent on poisons, which can operate on the system for a certain length of time only, and, consequently, that they will terminate favourably, provided the strength of the patient can be upheld for a sufficient length of time, and the occurrence of local complications be averted.

The modes in which death may occur during fever are by coma, apnœa, and asthenia.

1. The most common mode of death in all forms of fever is *coma*. It is that which we have especially to guard against in typhus, where it is caused partly by the presence of the morbid poison in the blood, and partly by the impure condition of the blood, from the imperfect mode in which all the secretions and excretions are performed. It is also a frequent cause of death in typhoid, and in relapsing fever, from the presence of the elements of the bile or of urea in the blood; and, in all the forms, it may supervene from congestion or inflammation of the brain and its membranes.

2. Death from apnœa is of common occurrence in the acute stages of all the forms of fever, depending either upon diphtheritic inflammation of the fauces, extending into the larynx and trachea; on bronchitis, and especially on capillary bronchitis, or on pneumonia; or lastly, on collapse of the lung, from want of power during the latter stages of the disease. It may also occur from any of these causes, or from pleurisy or pericarditis, during convalescence, and especially is apt to do so in typhoid.

3. Death from asthenia is seen to occur in the simplest form when it results from inanition, in consequence of the inability to get the patient to swallow the full amount of food required, as in typhus, and especially in prolonged cases of typhoid. The food which is taken may also be rejected by vomiting, as in some cases of typhoid, and especially in relapsing fever; or the patient may be exhausted by profuse diarrhœa, during the course of typhoid especially, but occasionally in typhus; or he may be worn out by long-continued diarrhœa, when the discharge is never very profuse, as in the atonic stage of typhoid. Profuse sweating in relapsing fever, or copious discharges of blood from the nose, or much more frequently from the bowels, in typhoid or relapsing fever, may occasion the same result. Death from asthenia may also occur from the supervention of acute peritonitis, dependent on perforation of the bowel, in the active stage, or during convalescence from typhoid; or when extensive sloughing occurs on the back, or, as occasionally happens, when the extremities become gangrenous in typhus or typhoid. And lastly, the fatal termination may be caused by sudden syncope, from allowing the patient to sit up in bed or leave the bed, during the active stages of any form of fever, or even at too early a period during convalescence.

Our practice, then, in the treatment of all the various forms of fever, must consist in guarding against their various tendencies to terminate in death; and we must bear in mind, that it is not against one only of these sources of danger that we must be on our guard, but that we constantly have to contend with the several threatening symptoms at the same time, or find them occurring at different periods of the attack.

1. It is essential that *stimulus and support* be exhibited in doses apportioned to the prostration of strength, and in the mode best calculated to assure their ready assimilation.

In the early stages of the disease, the patient should only take light and easily digestible food,—milk, arrow-root, sago, panada, broth, and soups, or light puddings; with the advancing weakness, the food must be given in a more concentrated form,—beef-tea, jelly, chicken-broth, etc.; and at a still later period, or when there is greater prostration of strength, stimulus must be had recourse to; at first, of a milder character, as wine, and subsequently, or when the depression of power is greater, brandy, ammonia, etc., must be given.

It is impossible to lay down any rules as to the quantity of stimulus that may be required. In some cases a few ounces of wine may be sufficient, in others it is impossible to give the support too freely, or in too concentrated a form. I have seen a young lady take. during twenty-fours, a full bottle of brandy, together with compound tincture of bark and ammonia, etc. And again, I have known a child take a full bottle of wine, with brandy, and other stimulus and support during the same period, and this, too, without producing any symptoms of intoxication, or accomplishing more than the mere maintenance of life. Indeed, in many cases, the hope of recovery rests entirely upon the continued exhibition of stimulus and support, and these must sometimes be constantly given, at intervals of a very few minutes. It is often, in the low stages of typhus or typhoid, and especially in children, very difficult to get the amount of nourishment which is required taken.

The stimulus should be exhibited in conjunction with food, and this should be prepared in the most concentrated form, and be exhibited in the liquid form, so as to be readily swallowed and equally readily assimilated. It should be given every hour or half-hour, or even every few minutes, and often it can only be exhibited in tea-spoonfuls at a time; indeed, I have seen life maintained by the mere constant wetting of the lips with wine. The diffusible stimulus should, in cases of this kind, be frequently varied, so as not to satiate the patient; sometimes wine, then brandy, or tincture of bark, or the sesquicarbonate or aromatic spirit of ammonia, in decoction of bark, or with some stimulating infusion, as the serpentary or senega. Generally, stimulus is required at the earliest period, and in the largest quantity, in the treatment of cases of typhus; but it is often necessary to exhibit it most freely in the other forms of fever, and especially in children; and while the prostration of strength is of comparatively short duration in typhus, it is in typhoid often very prolonged, and requires the persistent use of stimulants for many days. It is also very necessary after the exacerbation in relapsing fever. In the employment of alcoholic remedies in fever we must, however, bear in mind that they may occasion the comatose tendency, which it is one of our most important objects to prevent, and we should, therefore, be on our guard against their too liberal exhibition.

2. *Bark and Quinine.*—I have before alluded to the employment of quinine in large doses, with the hope of arresting an attack of fever. When so exhibited, the remedy operates as a sedative; but, in smaller doses, it acts as a tonic, and is often a valuable adjunct to other treatment; but, even when exhibited only in doses of two to four grains, three or four times daily, it is apt to excite headache, restlessness, vertigo, excessive dryness of tongue, and other unpleasant symptoms. Its use therefore requires great caution.

It is often very beneficial in accelerating convalescence when exhibited towards the end of an attack of fever, especially of typhus. It is very useful in cases of typhoid, which, in some localities and in some seasons, have a great tendency to assume a remittent character, having a marked exacerbation each evening, or to relapse. I have also been in the habit of employing it more freely in relapsing fever; but on the usefulness of quinine in this form of fever practical writers are not agreed. Quinine, exhibited in moderate doses, is also very beneficial in a form of typhoid which is not of uncommon occurrence, where the fever, without ever being very intense, is very prolonged, and day after day elapses without any material progress towards convalescence. In these cases the use of the remedy is often productive of very striking effects, and greatly accelerates recovery. I am generally in the habit of employing, during the active stages of fever, the infusion, decoction, or tincture of bark, in preference to quinine, believing these remedies to possess, in a greater degree, the tonic properties of the drug—while the quinine seems rather of use as an antiperiodic, and in strengthening the appetite at the end of an attack of fever.

3. *Remedies which have been supposed to exert a specific influence in checking decomposition* have also been employed in the treatment of fever. Of these, that most frequently used has been the chlorate of potash; and it has been much had recourse to since Chomel advocated its use in the typhoid fever of Paris. I have been constantly in the habit of employing

the chlorate in all forms of fever in doses of about ten grains dissolved in water, or in decoction of bark, slightly acidulated with hydrochloric acid, in all forms of fever, and with good results; but using it in combination with other active remedies, it is difficult to say what amount of credit is to be assigned to its asserted powers.

4. *Anodynes* are most useful in the treatment of all the various forms of fever. They may be exhibited to calm agitation and procure rest during various stages. Thus it is not very uncommon, in cases otherwise of mild fever, to find the patient wholly incapable of sleep, and thus the disease is kept up; in other cases there is active delirium, the patient being constantly talking, and endeavouring to get out of bed; and, in yet others, there is much tremour, agitation, and nervous excitement. In these cases an anodyne may at once break the chain of diseased action, and dispose the case to advance satisfactorily to convalescence. The exhibition of anodynes in fever requires, however, the greatest care; they may occasion the coma which should most cautiously be avoided; and in some cases, when they do not produce their anodyne effects, they give rise to distressing restlessness, and increase the delirium and excitement which may be present. Generally speaking, they may be exhibited more freely in the early stages of fever than at later periods; and, in typhoid and relapsing fever, more largely than in typhus. In some cases, where there is reason to suspect inflammation or congestion of the brain or its membranes, their use must be preceded by, or combined with, antiphlogistic treatment, cupping, leeches, ice, or blisters. In others, when there is great prostration of strength, they operate most beneficially when combined with diffusible stimulus, as wine, brandy, ether, or ammonia, or can only be safely employed when so combined.

Opiates are also very useful in checking diarrhœa, and they may be more freely applied under such circumstances; they are especially useful in this way, and also in relieving the abdominal pain, in cases of typhoid; and, when there is any suspicion of a tendency to perforation, they should be freely exhibited; when perforation has already occurred, their use in large doses, offers the only possible means of relief. In the early stages of typhoid, and also during convalescence from that disease, it is a good plan, when there is pain in the abdomen and the bowels are confined, not to exhibit an ordinary aperient; but rather to give a small dose of calomel with a full proportion of opium, and to repeat this in two or three hours, if the pain be not relieved. A small quantity of castor-oil may afterwards be given, and the bowels are then generally soon relieved without further inconvenience. I have thus seen attacks threatening perforation of the bowel, readily relieved.

5. *Astringents.*—In cases where there is diarrhœa, or discharge of blood from the bowels, astringents must be employed. For the relief of slight diarrhœa, the milder vegetable astringents, as kino or catechu, may be used in conjunction with the compound chalk mixture. In more severe cases, the gallic, and especially the tannic, acid, or the acetate of lead with opium, may be used; and these remedies must also be had recourse to in cases of hæmorrhage from the alimentary canal, or other mucous membrane.

When the discharge, whether simple diarrhœa or hæmorrhagic, takes place from the stomach or bowels, the tannic acid, having stronger local action, is probably the preferable remedy; but in discharges of blood from other organs, the gallic acid, being more readily absorbed, is probably more to be depended upon. I believe, however, in all such cases, that the acetate of lead exercises a much more powerful astringent action than any other remedy.

6. I have already alluded to the employment of *mercurials*, as a means of arresting the progress of fever. These remedies are also exhibited for the relief of the hepatic complications of different forms of fever, more particularly of typhoid and relapsing fevers. When, during the course, or at the commencement, of those diseases, there is more or less jaundice, with pain or tenderness in the region of the liver, I have usually had recourse to the employment of the milder mercurials, as the hydrarg. c. cretâ; and as, in such cases, there is also generally diarrhœa, it should usually be combined with astringents and anodynes, as Dover's powder, or the compound chalk powder with opium. This plan I believe to be preferable to the attempt at once to check the diarrhœa by the use of the more powerful astringents.

7. *Remedies employed to check vomiting, etc.*—Ice, hydrocyanic acid, effervescents, soda-water, with brandy, etc., must be had recourse to as circumstances require; and they are especially needed in cases of typhoid, more particularly when assuming the remittent form, and in the various stages of relapsing fever.

8. *Counter-irritants* may be employed for the relief of local complications in all forms of fever, but they are especially useful in the comatose affections of typhus or typhoid, and especially, in the latter disease, in children. In such cases the free application of blisters to the neck or to the scalp is of the greatest use. It is not by the discharge that they excite that their application seems to be beneficial, but from their powerfully arousing the patient. I therefore prefer the application of a succession of blisters, to the continuance of the discharge from the same surface. As a general remark, the liq. vesicatorius produces this effect much more decidedly than an ordinary blister, and I have certainly seen the lives of children saved, under the most unfavourable circumstances, by the free application of the blistering liquid to the scalp; nor did I ever know any unpleasant effects result from the practice. Sinapisms applied to the calves of the legs or feet, or hot mustard and salt baths may also be used in cases of cerebral complication, or as the means of arousing the patient when greatly prostrated. The continued use of warm poultices, or turpentine and other fomentations, is of the greatest use in cases of severe abdominal disturbance.

9. *Antiphlogistics* may be employed for the relief of the inflammatory complications of the different forms of fever; but, in modern practice, bloodletting is only practised locally by cupping or leeching. Either of these means may be employed for the relief of symptoms dependent on inflammation of the brain or its membranes; or the patient may be cupped on the chest or between the shoulder-blades in cases of pneumonia or bronchitis; or leeches may be applied on the abdomen, and especially in the right iliac region, in cases of typhoid, where there is pain, and other symptoms of unusually active abdominal inflammation; or on the right hypochondrium in cases of inflammation or active engorgement of the liver, especially in relapsing fever; but in all forms depletion is only applicable in the early stage, and requires the greatest caution. Antimony judiciously exhibited, and in combination with other means, is occasionally useful in the bronchitic or pneumonic complications of the different forms of fever.

10. Lastly, the greatest attention should be paid to *the hygienic management of the patient.* His hair should be cut short or shaved at the commencement of the treatment, according to the urgency of the cerebral symptoms. He should be kept clean; and free ablution of the hands and face, and of the body generally should be frequently practised. Though, indeed, cold affusion has been abandoned in the treatment of fever, ablution is still most usefully employed. Sometimes the patients prefer to be sponged with cold water, at other times with tepid or warm water; and in the later stages the employment of warm vinegar and water is often very beneficial. Ablution of the whole surface can rarely be borne at the later periods; but the head, face, hands, and feet may usually be sponged, several times in the day, with the greatest advantage, and often patients obtain great relief in the early stages from keeping their hands in cold or tepid water. The bed and body linen should be frequently changed; and the room should have a free perflation of air through it, care being taken not to allow the air entering to be too cool or damp, or the patient to be exposed to a direct draught. In making the requisite changes the patient should be disturbed as little as possible; and he should, on no account, be allowed to rise from the bed during the active period of the disease, to make use of the close stool, or for other purpose, or leave his bed at too early period during convalescence. I have known neglect of these precautions attended with fatal effects, in cases otherwise progressing favourably.

During convalescence also the regulation of the diet is of the greatest importance and especially in typhoid, in which a long period may elapse before the mucous membrane of the bowels recovers its healthy condition. The food should be light, simple, and easy of digestion; and should be taken in small quantities at a time and at frequent intervals. As the appetite returns, the stimulus should be diminished, and replaced by more nutritious food, the liquid should be gradually changed for the solid form, and the intervals allowed to elapse between the meals should be longer. The friends of the patient are apt to transgress in these respects, giving food in too large quantities, too frequently, and of too stimulating a

character. This should be carefully avoided. So far from convalescence being accelerated by such a course, it is apt to be protracted; and in typhoid, especially, serious or permanent evil may result. When, during convalescence, the exhibition of stimulus materially quickens the pulse or gives rise to flushing, heat, or dryness of the skin, it cannot be beneficial, and should only be given in smaller quantities, or be entirely abstained from.

ORIGINAL COMMUNICATIONS.

AN ANALYSIS OF 136 CASES OF PHTHISIS.

By ARTHUR LEARED, L.R.C.P., M.R.I.A.,
Late Physician to the British Civil Hospital at Smyrna, etc.

The following results are derived from 136 cases of phthisis, observed at the Royal Infirmary for Diseases of the Chest; they occurred in a total number of 644, chiefly out-patients, admitted under my care (a), a large proportion of these cases being assignable to other diseases of the respiratory organs, diseases of the heart, dyspepsia, etc. as well as to a class of cases to be found at all Institutions for diseases of the chest; those in which the Physician is obliged to hesitate in his diagnosis of phthisis, but in which, if he keeps a register, the evidences are sufficient to induce him to enter them as doubtful. Whenever, in such instances, I was enabled, as frequently happened, from the progress of the disease, to make a positive diagnosis, I invariably referred back to the original entry, and altered it accordingly (b).

Sex and Age.—Table to show the influence of sex and age in Phthisis and the position of Tubercle in relation to both.

Periods of Life.	Males.	Per cent.	Females.	Per cent.	Males. Right Lung.	Males. Left Lung.	Females. Right lung.	Females. Left lung.			
From 0 to 5 years.	2	1·47	1	0·73	—	1	—	—			
5 to 10	2	1·47	2	1·47	—	2	2	—			
10 to 20	7	5·14	10	7·35	2	5	3	7			
20 to 30	20	14·70	31	22·79	10	9	15	13			
30 to 40	21	15·44	20	14·70	12	9	10	10			
40 to 50	8	5·88	5	3·67	4	4	3	2			
50 to 60	3	2·20	1	0·73	1	1	—	1			
60 to 70	3	2·20	0	—	1	2	—	—			
	66	—	70	—	30	33	33	33	63	2	65
Not mentioned									66	5	71

(a) Between May 2nd, 1854, and Feb. 13th, 1855 inclusive.

(b) Of these doubtful cases there remained 92 in all; it would have been exceedingly difficult, if not impossible to ascertain the number of recoveries, because out-patients too often *discharge* themselves by merely ceasing their attendance, but a large proportion of them may be ranked as "cured."

In those instances, however, in which recoveries took place, for reasons to be stated hereafter, no change in the entries was made. I am aware that, in some respects, the number of cases is too limited for inferences of value to be drawn from them, and, on that account, there are some points of investigation which I have not treated statistically. There are, on the contrary, others, I believe, for the first time thus investigated. Great care has been taken throughout to ensure accuracy.

It will be observed that while the total number of females is but slightly greater than that of males, there is a great disparity in the relative proportion between them at different periods of life. More than a third of the whole that occurred between 20 and 30 years of age, were females; while of those between 30 and 40 more than half were males; the relative numbers of the latter increasing in each successive period. From this it would appear that the relative liability of the sexes to phthisis at given ages is much greater for women before, and for men after, 30 years of age.

As to the occurrence of tubercle in one or both lungs when, as often happened, both lungs were affected, that which appeared to be in the most advanced stage was registered in preference to the other, on the presumption that the disease commenced in the former. I may also observe that the registry was mainly in reference to diagnosis from infra-clavicular examinations. When, however, the apex of one lung is found tuberculous anteriorly, the superior portion of the other will not unfrequently be found similarly affected posteriorly. The occurrence of such diagonal cases, if I may call them so, cannot, however, materially affect inferences to be drawn from the table, which tend to corroborate the observations of others that the left lung is somewhat more liable to tubercle than the right. The influence of age and sex in the matter would, from the above table, appear to be unimportant.

Hereditary Transmission.—Table to show the number of Phthisical Sons and Daughters in reference to Phthisical Parents or Grandparents of both Sexes.

	Sons.	Per cent. in 66.	Daughters.	Per cent. in 70.
Father	5	7·57	8	11·43
Mother	6	9·09	12	17·14
Father and mother	—	—	1	1·43
Paternal grandfather	1	1·51	—	—
Paternal grandmother	—	—	2	2·85
Maternal grandfather	—	—	—	—
Maternal grandmother	—	—	1	1·43
	12	—	24	—

The transmission of phthisis from father to daughter, by nearly one-third more frequently than by father to son as above, is not in accordance with the Brompton Hospital report, which gives a per centage of 43·5, and 59·4 respectively; while the transmission from mother to daughter in the proportion of nearly 2 to 1, is rather greater than that given in the same report, which is 56·5 to 40·6, respectively. The proportion of sons born of phthisical parents compared with daughters in the above table, 11 to 20, or nearly 2 to 1 is however closely in accordance with that given in the Brompton Hospital report, deduced from 246 cases, viz., 36·3 per cent. for females, and 18·2 per cent. for males. The investigation of the transmission of phthisis from the grandparents of patients is necessarily more uncertain; but the above is the result of careful inquiries. It is to be observed, that cases in which the parents were not affected with the disease are alone referred to. So far they tend to show that the transmission of phthisis by the maternal grandparents is more frequent in the case of granddaughters, and especially of grandmothers to granddaughters.

Temperament.—This, including notes of the colour of the hair and eyes of the patients, their habit of body in health, and their stature, I made the subject of careful investigation. I find, however, that the observations are too arbitrary to lead to definite results, and I have therefore omitted them. Tallness of stature does not stand out in my observations as a predisposing cause of phthisis, nor does it appear to me that persons of any one temperament are more secure from the disease than those of another.

Occupation.—It appears to me that observations upon the influence of occupation in the production of phthisis are worthless, unless made on the largest scale, and then with

proper allowance for local circumstances. It is obvious that in a large city, where two institutions are devoted to the same disease, but separated by some distance, each will be more especially attended by the class of patients resident in its vicinity; and it is notorious that persons of special trades and occupations are, to a great extent, congregated in particular districts. Instead, therefore, of giving the aggregate results under this head, I shall refer, under the succeeding one, to those individual instances in which, according to the belief of the patients themselves, their occupations were the exciting causes of the disease.

Social Condition.—Table showing the social condition as regards Marriage, when noted, of the Patients above 15 years of Age in 136 Cases of Phthisis.

	Single.	Married.	Widowed.	Not noted.	Total.
Males	19	34	5	3	61
Females	24	37	2	1	64
Total.. ..	43	71	7	4	125

Contagion.—An accurate investigation of this subject appeared to me a desideratum. The table given below shows the result:—

From this it is seen that only 3 males and 4 females, total 7 out of 136 cases, or 5·14 per cent., afforded any evidence of the action of contagion. Moreover, it is precisely in the 4 cases in which contagion might be most forcibly maintained, on account of the time the disease commenced, that evidence of hereditary transmission appears. When in addition it is considered that persons living under the same roof are rendered liable to the same diseases from the same hygienic causes, the operation of contagion in the phthisis of this country must be regarded as altogether unimportant, if, indeed, it exists at all.

Nevertheless, whether we regard tubercle as the result of a specific blood-disorder, or as a parasitic cell-growth, air expired from lungs, in which it exists in the softened condition, can hardly fail to be impregnated with its particles; such particles, if inhaled by healthy lungs, would find easy access to their proper nidus for propagation, supposing tubercle to be a parasitic growth. If, on the other hand, we suppose, as is more probable, that, in phthisis, a blood-disorder precedes any local manifestation, the morbid product of tuberculous lungs, even in the form of an exhalation, would, in like manner, be easily transmitted through their lungs to the blood of the healthy. The well-known belief in the contagion of phthisis, throughout the south of Europe, holds also in the Levant, as I can speak from my own experience. I may here mention two circumstances which, happening at the time when the experiment of congregating a large number of phthisical patients was comparatively new, made a strong impression on my mind.

Soon after the establishment of the Hospital for Consumption in its present locality at Brompton, I became resident in the Institution as one of two Physician's Assistants. Of the two gentlemen who had been first appointed, one left in bad health, and in a short time died of phthisis at Madeira. The other soon afterwards died of phthisis, apparently contracted during his residence in the Hospital. Both gentlemen were robust, and appeared to be free from disease up to the time of their appointment. After careful inquiry into the matter, it appears, however, that, during an interval of several years, out of the many persons not patients resident in the Hospital, with the exception of one elderly female, no other deaths from phthisis have occurred. It becomes a question, therefore, whether the proportion of phthisical cases that originated in the Brompton Hospital has been greater than the average number originated in General Hospitals amongst the same number of a similar class of residents, and in the same period. The circumstances first mentioned, however remarkable, may have been merely coincidences.

Table showing the evidence of Contagion in 7 Cases of Phthisis.

Number.	Sex.	Age.	Occupation.	Time from commencement of Attack to Admission.	Hereditary predisposition.	How exposed to Contagion.
1	Male	4	—	"A long time."	Mother dead of Phthisis 2 years.	Slept with mother up to time of death.
2	Female	9	—	1 year.	Mother dead of Phthisis, 6 weeks.	Slept in room with mother during her illness.
3	Female	32	Needlewoman.	1½ year.	—	Husband dead of Phthisis, 2 years; child that slept with her dead of Phthisis, one week.
4	Male	32	Shopman.	4 years.	Mother and three maternal aunts dead of Phthisis.	Wife dead of Phthisis 3 years and 3 months.
5	Female	33	Domestic.	2 years.	—	First husband dead of Phthisis 6 years.
6	Male	46	Jeweller.	1½ year.	Sister dead of Phthisis.	Wife dead of Phthisis 1½ year.
7	Female	52	Lodging-house Keeper.	1 year.	—	Husband dead of Phthisis 2 years.

Cause alleged by patient.—I have not thought this subject unworthy of careful inquiry; and the information derived from it will be seen in the table in the following page.

It thus appears that in more than two-thirds of the whole number of cases a definite cause was assigned for the disorder. The statements were almost invariably made with great positiveness, and they are certainly entitled to consideration. Twenty-nine of the whole number assigning causes attributed the onset of the disease to a "cold," or to "repeated colds," the cause of neither of the latter, however, being stated, while a particular cold has been itself traced to its source, or connected with something else in 26 other cases, and to the latter class I wish to direct more especial attention. We have thus a total of 55 attributing their disease to "cold" or catarrh; making, therefore, every allowance for the liability to confound with it the earlier stages of phthisis itself, and admitting that a fair proportion of the first-named 29 cases were in reality involved in this error, it seems to me highly probable that the popular notion in this, as in many other instances, is founded upon fact. Whether certain forms of bronchitis were complications or not, is little to the purpose. The general fact seems to be that, in the predisposed habit, phthisis is not uncommonly developed by the operation of causes producing symptoms recognized as "cold." In rejecting the explanation of the origin of the disease given by certain humoralists of a by-gone age, we have, it appears to me, gone too far in the opposite direction, since catarrh is by some quite ignored as an exciting cause.

Most of the other causes assigned are such as will readily be accepted as likely to excite the disease—as hooping-cough, scarlatina, measles, and typhus. Gout and rheumatism have been, however, regarded as antagonistic. Contagion was given as the cause in two cases, numbers 3 and 6 in the table on the subject.

Table exhibiting the causes assigned for the disease by 94 Phthisical patients.

	Males.	Females.	Both.
"A cold" or "colds." Without any cause assigned for	15	14	29
Connected with or assigned to one of the following causes—			
Wettings and damp fect	11	4	15
Damp beds	2	—	2
Sitting on grass	—	1	1
Riding outside omnibus in a fog	1	—	1
Leaving off clothes..	—	1	1
Lauudry work	—	2	2
Steam-heated workshop (paper-stainer)	2	—	2
After miscarriage	—	1	1
During menstruation	—	1	1
Trade or occupation of—			
Cigar maker ; dissipation also in one case	2	—	2
Butcher ; overworked	1	—	1
Canedresser ; exposure to coke fire	—	1	1
Mill sawyer ; nightwork	1	—	1
Policeman ; duty in snowy weather	1	—	1
Tailor ; sedentariness	1	—	1
Smith ; hardwork	1	—	1
Servant ; "heats and colds" ..	—	1	1
Coming from the country to live in London..	1	3	4
Weakness of constitution	—	3	3
Contagion	1	1	2
Rupture of bloodvessels	—	2	2
Unfavourable accouchement ..	—	2	2
Derangement of catamenia by fright	—	1	1
Marrying too young	—	1	1
Disappointment in love	—	1	1
Hardship from bad husband.. ..	—	1	1
Fretting	—	1	1
Spirit drinking..	1	—	1
Sore throat	1	—	1
Influenza..	1	—	1
Hooping cough..	1	1	2
Measles	2	—	2
Scarlatina	—	1	1
Typhus	—	1	1
Rheumatic fever	2	—	2
Gout	1	—	1
	49	45	94
No cause assigned by	—	—	42
	—	—	136

I have said, that no case that I considered in the least doubtful as to diagnosis was registered as phthisis. I shall here offer a few remarks on the considerable class of doubtful cases. That there is a stage of phthisis not to be detected by phthisical signs cannot be doubted ; but I believe that physical signs, even when to some extent combined with constitutional symptoms, cannot be always relied on in the diagnosis of incipient phthisis. In the very combination spoken of there is an element sometimes productive of error. As this element appears to have been overlooked, I shall endeavour to illustrate it. I have long observed that the results yielded by the spirometer are not merely influenced by the actual capacity of the lungs for air, but notably also by the state of health and strength of the individual experimented on. Not only is the "vital capacity" impaired by obstructions in the lungs themselves, but a weak man will "blow" less than a strong man, and the latter less when debilitated *by any cause* than when in the vigour of health. The respiratory murmur is, in like manner, affected by the same causes, independently of essential changes in the lungs. Let us take, then, the case of a patient suffering from the debilitating but latent influence of either gout, syphilis, hysteria, or dyspepsia, known to give rise to symptoms closely resembling, or identical with those of, incipient phthisis. Changes in the respiratory murmur result from the accompanying debility, and it is possible that these changes do not always occur in both lungs or in the same degree in both. We know, however, that a difference in the amount of respiratory murmur between the right and the left lung is often the normal condition, and I have reason to believe that this difference, of itself tending to mislead, is sometimes thus apparently augmented.

Even the results of percussion are not to be implicitly relied on. It is known that, occasionally, from causes not well explained, percussion under the same clavicle, even within short intervals of time, is found to yield different results. So much for the application of the signs often regarded as conclusive in the early diagnosis of phthisis. Such are some of the sources of fallacy which, besides errors of observation, may have induced the present tendency, to attribute, on so large a scale, the cure of phthisis to treatment. An investigation of these sources is the more necessary because the tendency has been evinced by gentlemen whose statements are otherwise above suspicion.

It should be proved, on the most incontrovertible physical evidence, that the organic changes effected by phthisis have really taken place, before we assert that they have been eradicated. This incontrovertible proof I do not believe to be always attained, either by sounds differing merely in slight degrees of intensity, or by the results of the spirometer. It need not be regarded as contradictory, however, when I express my belief in the reality of a fair proportion of alleged recoveries from the early stage of phthisis. It may be inferred, *à fortiori*, from the instances of recovery from even the more advanced stages of the disease. Fortunately, the treatment most generally useful in incipient phthisis is that most generally applicable in doubtful cases. With curing them as such, in the present state of knowledge, we should be content.

14, Finsbury-place, South.

SOME ACCOUNT OF THE ÉCRASEUR OF M. CHASSAIGNAC.

By T. SPENCER WELLS, F.R.C.S.
Lecturer on Surgery at the Grosvenor-place School.

In my introductory lecture on the 1st of this month, at the Grosvenor-place School, I exhibited several new or improved Surgical instruments. Among them was the *écraseur* of M. Chassaignac, which appeared to be regarded with some curiosity and general interest ; and I have been requested by several Medical friends to publish some account of it in the *Medical Times and Gazette*. It has excited a great deal of enthusiasm among our brethren on the other side of the channel, who pronounce it to be the greatest improvement in Surgery since the discovery of chloroform. The instrument which M. Chassaignac uses is made by an instrument-maker named Mathieu, and costs 48 francs. M. Luer has contrived one on the same principle, but of superior construction, for which he charges 80 francs. Both these instruments, however,

appeared to me to be inferior to the one here figured, which is made by M. Charrière, and costs only 30 francs. In all these instruments the essential part is a sort of blunt chain-saw, which is tightened in M. Charrière's instrument by a screw, in the others by a rack and pinion. The great objections to both the latter are, that the chain passes through a closed channel which is difficult to clean or keep dry, and it is not passed through very easily, or fastened readily. Comparatively clumsy, more complicated, and dearer, I cannot doubt their inferiority.

If it were wished to give this instrument a Greek instead of a French name, it might be called sareotrite or histotrite, flesh or tissue breaker or crusher. It is intended to replace the knife on the one hand, and caustics or ligatures on the other, when we have to remove parts of the body, or morbid growths, where considerable hæmorrhage may be looked for. In a word, it is intended to prevent the loss of blood in Surgical operations. The tongue has been removed ; the neck of the uterus amputated ; a number of erectile tumours, and polypi naso-pharyngeal, uterine, and rectal, have been taken away, we are assured, without the loss of a drop of blood. A full account of these operations, of the origin of the method in 1850, and its advance to the present time, with detailed directions for the use of the instrument in its various applications, will be found in M. Chassaignac's *Traité de l'écrasement linéaire*, a book of 560

pages, with 40 woodcuts, which has been published this year by Baillière, of Paris, for six francs. There is a copy in the Library of the Royal College of Surgeons.

The action of the instrument, though slower than that of the knife, is much more rapid than that of the ligature, and its action is direct; not indirect like the ligature which only divides tissues by the process of gangrene it induces. The *écraseur* first condenses the tissues it acts on, and then divides them with extreme regularity. The wound does not appear at all bruised or torn. When it acts on an artery, it first divides the two internal coats, which are folded up in such a manner as to plug the vessel. The closure is assisted by the agglutination of the outer coats, before they are divided, and after separation has been effected, the closure is so perfect that the channel cannot be opened by blowing forcibly through it. Experiments have been made at the Veterinary School near Paris, and the carotids of sheep have been divided without loss of blood. There is nothing surprising in this, when we remember how seldom severe gun-shot, lacerated, or contused wounds bleed, that a limb may be torn off by machinery, and no blood be lost; and that *bites* are very rarely attended by hæmorrhage. The lower animals have no occasion to apply a ligature upon the umbilical chord of their young. They simply bite it through, and the action of the *écraseur* is much more like that of biting than of crushing.

My personal experience of the use of this instrument in the living human body amounts only to three operations I saw M. Chassaignac perform—the removal of a portion of the tongue, a testicle, and a mammary tumour. In the first case, about a third of the tongue was removed, on account of supposed malignant disease. The man was not under the influence of chloroform, and the operation occupied twenty minutes. It appeared to be very painful, although we are informed that the pain is not in general complained of after the first tightening of the instrument benumbs the parts. There was some bleeding, which was explained by the dresser who had continued to tighten the chain, having done so too fast, and by the patient having jerked his head at the conclusion of the operation, and separated the last shreds of the tongue suddenly. A quarter of an hour afterwards I followed the man to the ward, and found him bleeding profusely. I could see a small artery jetting freely at the lower part of the wound. A Sister of Charity was supplying the man with lumps of ice to keep in his mouth; and she told me that, expecting what would happen, she had the ice all ready by the time the man returned from the theatre. She said she had seen a great many of these operations on the tongue, perhaps fifty; that they occurred almost every week, and that there was troublesome bleeding in a large proportion, perhaps about half or rather more; but that ice always succeeded in stopping it.

In the second case a testicle was removed, and not a drachm of blood was lost, though we could see the spermatic artery pulsating very distinctly at the spot where it had been divided. Two *écraseurs* were used in this operation, the chains being passed through an opening made by a trocar in the upper part of the scrotum, above the testis and behind the chord. One divided the cord and integuments horizontally, the other divided the scrotum vertically. Thus a very large portion of the scrotum was removed, and there was not enough left to cover the remaining testicle. It appeared to me that if the *écraseur* were used at all in such an operation, the scrotum should certainly be first divided with the knife, so that none should be lost, and the *écraseur* be merely used to divide the cord.

In the third case I could not understand why the instrument was used at all. A small mammary tumour was to be removed, and to get the chain around it, it was necessary to lay it bare with the knife. Of course the principal vessels were divided in this process, and a very few more touches of the knife would have sufficed to separate the tumour, when the *écraseur* was applied.

I found that of upwards of a hundred operations on piles with this instrument, one had proved fatal. The man was suffering at the time from secondary syphilis.

The impression left on my mind from what I have seen and heard, and from my own trial of the instrument on the dead body and on the arteries of sheep and a calf, is that, if slowly and properly used, hæmorrhage will very rarely follow its application, but that its use will most likely be restricted to the removal of piles, polypi, and such erectile or malignant growths as could not be removed by the knife without a probability of dangerous hæmorrhage. In such cases the superiority over the ligature in the time gained, and the non-liability to purulent or putrid absorption is self-evident. Whether it will answer as well as a wire heated by galvanism experience alone can decide.

3, Upper Grosvenor-street, October 4, 1856.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

THE METROPOLITAN FREE HOSPITAL

AND THE

HOSPITAL FOR DISEASES OF THE SKIN.

REPORT ON THE TRANSMISSION OF SYPHILIS FROM THE FŒTUS TO ITS MOTHER.

(Communicated by Mr. HUTCHINSON, Surgeon to the Metropolitan Free Hospital.)

The following table comprises 50 cases believed to be examples of the communication of a syphilitic taint from the fœtus in utero to its mother. The first 39 occurred at the Metropolitan Free, the next 9 at the Hospital for Skin Diseases (for permission to employ which the author is indebted to his friends, Messrs. Startin and M'Whinnie), and the last at the City Hospital for Chest Diseases. A paper, consisting of comments on the series, was read by Mr. Hutchinson before the Hunterian Society on Wednesday evening last (a), and will shortly appear among our original communications. In the meantime, however, by way of key to the series, the following may be mentioned as some of the principal conclusions arrived at:—

1. That women pregnant by fathers suffering from constitutional taint are very liable to receive the disease from the fœtus.

2. That, when this occurs, the form of disease manifested by the mother will resemble closely that of the father.

3. That syphilitic cachexia, and symptoms of the late tertiary class (palmar psoriasis, fissures of the tongue, leucorrhœa, serpiginous cicatrizing ulcers, and nodes) are the most frequent manifestations of taint thus derived.

4. That the reason why, under these circumstances, severe outbreaks of symptoms of the secondary class so very rarely occur is, that the father has, in almost all cases, long passed that stage, and possesses only a taint of the blood or late tertiary manifestations.

5. That the disease thus derived is not zymotic, *i. e.*, that its severity will depend directly on the amount of the contagious material received, and on the constitutional vigour of the recipient, and that increase of symptoms and relapses may be produced by repetition of exposure to contagion.

6. That proneness to abort is not nearly so frequently observed in this class of cases as in that in which the mothers have themselves had primary syphilis.

7. That contamination by pregnancy offers a satisfactory explanation of most of the cases of so-called contagion of secondary syphilis.

8. That it is extremely doubtful if "contagion by the seminal fluid" be possible, cases being extremely rare in which married women who have never conceived become the subjects of constitutional taint, without having had primary symptoms, and are in all probability to be explained as errors of observation. (The author had met with but one case of this class.)

(a) The subject excited so much interest, that after a short debate upon it it was, on the motion of Dr. Oldham, unanimously determined to adjourn the discussion to the next meeting, which will take place on Wednesday, the 22nd inst.

No.	Reference.	Name and Date.	Age.	History of Conceptions, etc.	State of General Health.
1	P. 4 701	Mary Aun Cook. April 25, 1855.	26	Has 3 living children; during first preguancy did not suffer much, the child had no symptoms; during the second she had a sore mouth, the child had symptoms; during the third she had for long, sore mouth, tongue, and throat—the iufant had scvere symptoms. (A year later than the date, I saw her again ou account of syphilitic patches on the tonguc, she was then again pregnant.)	Modcrately stont, but palc, and of bad complexion. Has been more or less ailing since marriage.
2	P. 120 1160 O. 21 1629	Susau Sumucr. August 18, 1855.	35	Has had 4 children, 2 are living and 2 dead; never had any symptom suspicions of syphilis until her foot was injure d 5 months before admission. (History imperfectly obtained).	Is pale and cachectic.
3	P. 146 1246	Maria Retford. Sept. 12, 1855.	27	Married 7 years; niue months after marriage she miscarried of a 3 months' fœtus, and since then has always been ailing; this was the ouly time she ever conceived. Had excellent health before marriage.	Somewhat cachectic-lookiug, but stout; complaining much of general loss of health.
4	P. 168 1336	Mary Aun Mellor. Sept. 26, 1855.	30	Her eldest, now aged 8, never had auy suspicious symptoms; two later ones died of congenital syphilis, and the youngest is now attendiug Dr. Ramskill (seen) for the same; she has always been ill duriug pregnancy, and her eyelids have been more sore. Has had several miscarriages.	Stout and healthy-looking.
5	O. 21 1627	Jane Knight. Nov. 28, 1855.	47	Married many years and the mother of several children. (History incomplete).	Healthy-looking.
6	O. 157	Mercy Smith. Feb. 16, 1856.	21	Married 18 mouths, was ailiug during pregnancy and her infant suffered after birth most severely from congeuital syphilis.	Has lost flesh considerably, and is rather pale; feels weak.
7	O. 224 O. 237	Mary Ann Mitchell. March 22, 1856.	32	Has had many miscarriages at early periods, but no living children; married 9 years, the wife of a man uow nuder my care for tertiary syphilis. She believes herself the subject of that disease, but assures me most positively that she never had a sore on the genitals.	Stout, but pale and cachectic; very weakly and ailing.
8	O. 251 2340	Sarah Regan. April 5, 1856.	35	Married 14 years; states that she never was pregnant; but, on inquiry, I find that repeatedly menstruation has been absent for several months togcther, after which an unusually profuse discharge would occur.	Pale and cachectic. "Was in excellent health before marriage; but has never been well since."
9	O. 261 2365	Mrs. Dance. April 9, 1856.	45	Twice married; enjoyed good health until her first pregnancy by the secoud husband; the boy who is now 15 has suffered most severely from hereditary syphilis, and is now under my care. Whilst preguant she lost her hair and had profuse leucorrhœa; soon after delivery she had sore throat and eruption; a second child also had syphilis.	Marked syphilitic cachexia; pale, earthy complexion.
10	N. 5 2462	Margaret Smith. May 3, 1856.	28	Her eldest child, now aged 3, never had a suspicious symptom; her next was a still-birth at 8 months, and the third child was boru living at 7 but died when a fortnight old. Her youngest now aged 10 months, is a remarkably fine baby.	Healthy-looking aud florid.
11	N. 66 2674	Sophia Barrett. June 3, 1856.	21	Married 2 years; the first preguancy ended 6 mouths ago in a 5 months' abortion, since which she has never been well; is now again in the se cond month of pregnancy; although ill she had no special symptoms nutil four months ago. Husbaud in good health.	Pale aud cachectic.
12	N. 77 2712	Mary Ann Stevens. June 10, 1856.	20	Married 1 year; was confined 4 months ago, her iufant had congenital syphilis and died aged 2 weeks. Husband stated to be a very healthy looking man.	Cachectic.
13	N. 77 2711	Eliza Jane Weeks. June 10, 1856.	36	Has had 7 children, only 3 of whom are living, the eldest of them now aged 13 suffers from congenital syphilis, having had iritis and nodes, she had, however, no symptoms in infancy; none of the childreu appear to have had suspicious symptoms in infancy. The mother states that she has had good health, but that during one pregnancy she had sore places ou the tongue which were very troublesome and did not get well till she was confined.	Healthy-looking.
14	N. 101 2784	Emily Boddington. June 30, 1856.	25	Has had 4 children, all living, except the last; all are delicate, and have had, more or less severely, syphilitic symptoms; tho youngest, aged 3 months, the subject of cleft palate, has just died of syphilis, uuder my care.	Pale, feeble, and cachectic.
15	N. 111 2315	Anne Lee. June 27, 1856.	36	Has had 4 children, 2 of whom are living, and all of whom appear to have shown more or less of syphilitic symptoms.	Cachectic, pale, and of earthy complexion.
16	N. 131 2291	Hannah Perrymau. July 22, 1856.	20	Married 3 months, and has twice missed meustruation; probably 10 weeks pregnant with a syphilitic fœtus.	Was very healthy before marriage has rapidly got pale, feeble, and cachectic.
17	N. 132 2293	Elizabeth Davis. July 22, 1856. A Jewess.	31	Married 11 years, and has had several healthy children, noue of whom appear to have ever had auy suspicious symptoms.	Is stout, and looks well.
18	N. 141.	Maria Magsou. August 19.	24	Has had 2 children, both of whom have had syphilis during iufancy; husband known to have had syphilis before marriage.	Has been more or less ill since marriage, and has greatly lost health, but is still of good colour

Present Symptoms.	Previous Symptoms.	Had any Secondary Symptoms ever occurred?	Result of Treatment.	Evidence that the symptoms had really been Syphilitic.	Remarks.
Psoriasis about the mouth and face; leucorrhœa; syphilitic cachexia.	Sore tongue and mouth during pregnancies; leucorrhœa; psoriasis about the face and mouth.	No.	Gained flesh and strength, and got a much clearer complexion under a 4 months' course of the iodide.	Her children were undoubtedly so; her own symptoms were in themselves very suspicious, and their cure by anti-syphilitic treatment made the diagnosis positive.	The symptoms became more severe with each pregnancy, and the children also suffered more severely.
Serpiginous ulceration now between the toes following a tread; sloughing of a bursa in front of the patella, the sore assuming a syphilitic character.	None; excepting the ulceration between the toes, the nature of which is undoubted.	No.	The sores healed under treatment by the iodide, but again ulcerated some months after its discontinuance.	Its appearance and behaviour under specific treatment.	A good example of latent syphilis, localised and excited by injuries.
Horseshoe patch of serpiginous and worm-eaten ulceration around the right knee.	The patch on her knee has existed 2 years, sometimes better and at others worse; excepting general loss of health she never had any other suspicious symptom.	No.	The disease improved greatly under mercurial and iodide treatment; probably got quite well.	Its appearance was undoubted, and the effect of specific treatment was also most marked.	A period of four years elapsed between the conception of the infecting fœtus and the outbreak of symptoms.
Patches of tinea tarsi, of syphilitic appearance, not involving the whole lid, and spreading in patches on the adjacent skin.	No specific symptom, excepting the tinea, which has been worse during every pregnancy, and increasingly so of late.	No.	Improved under specific treatment.	The appearance of the disease and the fact that she had born syphilitic children.	The character of the tinea was so peculiar, that I had pronounced it syphilitic before any knowledge of the history of her children.
Horseshoe-shaped patches of ulceration, bordered by pustules between the shoulders, etc., of six years' duration.	Never had any suspicious symptoms excepting the present.	No.	Quickly got well under specific treatment.	The appearance of the eruption, its long duration, and the effect of treatment.	—
A few papules and fissures about the angles of the mouth.	Had some spots on the shoulder soon after conception, and severe leucorrhœa.	No. Doubtful.	Was salivated, and all the spots got well.	Her husband and child known to have had syphilis. The effect of treatment.	Her husband was known to have had syphilis before marriage.
White patches inside the cheeks; erythema of the face; syphilitic cachexia.	Has had sore throat, rash on the face, sore tongue, debility; repeated miscarriages.		Improved under specific measures.	Her husband known to have had syphilis. The character of the disease and its curability by specific measures.	Given in detail in the paper.
Peeling of the skin in patches in the right palm; profuse leucorrhœa; cachexia.	Has had "bad ulcerated sore throat" several times; the scars remain visible; cachexia and leucorrhœa.	No.	Not known.	Its character and association with cachexia, leucorrhœa, and ulcerated sore throat.	—
Nodes on the skull, the humerus, and ulna; ulcers in the hard palate; menstruation suspended.	Has "suffered a martyrdom for 16 years," having never been long free from either sore throat, rash, or nodes.	Yes.	Was cured by treatment with the iodide for five months.	Its character, history, and behaviour under specific treatment. She had born syphilitic children.	Detailed in the paper.
Extensive ulcerative destruction of the soft palate of six months' duration; leucorrhœa slight; fistula lachrymalis.	The sore throat is the only suspicious symptom she ever had.	No.	Was quickly cured by iodine treatment, with mercurials.	Its character was undoubted, and the effect of specific treatment was most marked.	In this case two of the children had not perceptibly suffered, and the woman herself remained in good health. Originally very robust.
Condylomata (symmetrical) at the edges of the labia; condylomata, and fissures at the angles of the mouth; superficial ulcers in each tonsil; hair falling.	Always weak and ill since the date of her first conception; the outbreak of symptoms was, however, only 4 months ago.	No.	Got nearly well under a 2 months' course of the iodide and Plummer's pill, relapsed when it was suspended, & again recovered under its resumed use.	Its character was positive.	The disease developed itself in an unusually severe form, the symptoms being wholly of the secondary class.
Condylomata about the anus and on margins of labia (symmetrical).	When two months pregnant she had a blow on the upper lip, after which an unhealthy sore formed; it is yet scarcely healed, and looks specific; the condylomata have existed two months.	Yes.	Got all but well after a month's specific treatment.	Its character, her infant having died of syphilis, and the behaviour of the disease under treatment.	—
None.	A troublesome sore tongue during one pregnancy is the only symptom she appears to have ever had.	Yes.	Not treated by me. She applied, not for herself, but for her child, who had congenital syphilis.	One of her children being undoubtedly syphilitic. The suspicious nature of a sore tongue during pregnancy with a syphilitic fœtus.	In this case the manifestation, both in mother and child, had been unusually slight.
Marked cachexia; earthy complexion; leucorrhœa; debility.	Has been gradually losing health since her first pregnancy; has had sore throats, but no other suspicious symptoms.	Doubtful.	Not known.	His children were all of them syphilitic, each succeeding one suffering more than its predecessor. She had always had excellent health before marriage.	Detailed in the paper.
Eczema about the breasts, with fissures in the nipples; slight psoriasis about the face; remains of palmar psoriasis; congestion of the left eye; cachexia.	Liable to psoriasis palmaris and to psoriasis on the face.	No.	Improved rapidly under specific measures.	Their kind and association together; her children were undoubtedly syphilitic.	—
Blotches on the arms and thighs of very suspicious appearance; leucorrhœa; cachexia.	Had no symptoms until the present ones.	No.	Did not improve until a specific treatment was tried. Final result not known.	The character of the rash and its association with leucorrhœa and cachexia subsequent to pregnancy.	—
Large patch of serpiginous, syphilitic ulceration about the left elbow; it has partly healed but is spreading at the edge; it has often partly healed; sore tongue but no white marks.	Has had sore throat and sore tongue repeatedly; the patch on the elbow has existed 8 years.	No.	Improved under specific treatment. Final result not known.	The character of the ulceration and its association with sore tongue, and sore throat. The effect of treatment.	Probably of robust constitution, capable of resisting the virus itself, and of protecting her children. The taint on her husband's side probably only very feeble.
Tinea tarsi and successive crops of styes; leucorrhœa and loss of flesh.	Leucorrhœa; loss of flesh and debility; never had any sore throat or rash.	Doubtful.	Has twice improved in health, and got well of the styes, by short courses of specific treatment.	Her children have been syphilitic and her own symptoms, suspicious in themselves, have yielded to specific measures.	—

No.	Reference.	Name and Date.	Age.	History of Conceptions.	State of General Health.
	N. 173	Isabella Andrews. Sept. 5, 1856.	19	Married 2 years; soon afterwards had an abortion at 2 months, and about the same time had sore throat; no second conception.	Has lost health since her first pregnancy; but still not very cachectic.
20	N. 181 3052	Catherine Hewett. Sept. 9, 1856.	28	Married 14 months; her first infant, now aged 3 months, is syphilitic; during pregnancy she was extremely sick, but had no specific symptoms.	Is very pale, and much out of health.
	Register 4 Page 31 Case 71	Elizabeth Jackson. Jan. 3, 1855.	32	Married 3 years; enjoyed excellent health until, about 15 months after marriage, she became pregnant; she then lost flesh, became very weak, of bad complexion, etc., "thought she should have died;" the hair fell off, and she had leucorrhœa; no sores on the genitals, nor any specific symptoms; the infant when born had no suspicious symptoms, nor did such show themselves within a year of its birth.	Aspect florid; but she states that she is not half so stout as she was before marriage.
	M. 4 Page 53 Case 128	Mrs. Trenaman. Jan. 10, 1855.	35 (?)	Has had 4 children, and her youngest is now suffering from syphilis; none of the former ones appear to have had suspicious symptoms; during pregnancy she always feels weak and ill, and states that on one occasion she had a rash, and lost her hair.	Florid and stout.
23	Z. 12 404	Sarah Royfée. March 6, 1855.	20	Married 13 months; the infant now aged 3 months, has syphilis; she has lost health during pregnancy.	Tolerably good; but she has lost flesh greatly, and feels weak.
24	Z. 15 417	Elizabeth Payne. March 13, 1856.	24	Married 4 years; has had 2 children, and both have died of congenital syphilis; has been ill during both pregnancies, losing her complexion, and suffering severely from leucorrhœa; no miscarriages.	Before marriage was robust and healthy, but has never been well since; pale, earthy complexion.
25	Z. 15 418b	Jane Rackley. March 13, 1856.	21	Married 17 months; her only child, now 8 months old, has had syphilis from birth; during pregnancy she was very ill, and had sore mouth and throat, but no rash and no leucorrhœa.	Pale and cachectic.
26	Z. 59 592	Esther Titchener. April 11.	22	Married 1 year; the first pregnancy ended in an abortion at 2 months, and after it she had an eruption over the whole body; a second abortion at 10 weeks followed six months later, and condylomata on the tongue, lips, and throat then appeared; her husband is under care on account of tertiary syphilis.	Severe syphilitic cachexia; of pale, earthy complexion.
27	Z. 61	Johanna Mack. April 11.	35	Married 7 years; has had 7 children, only 1 at the full time, and only 1 living; the 1 living suffers from syphilis; she has lost her health, and been for 5 or 6 years liable to outbreaks of psoriasis and to severe leucorrhœa; her husband is under care on account of late tertiary syphilis.	Pale, earthy complexion; feeble and cachectic.
28	M.B. viii. Page 21. H.S.D.	Ann Hollowby. Oct. 7, 1853.	36	Has had 8 pregnancies, of which 2 only resulted in miscarriages; she states that none of her children have any suspicious symptoms; ever since soon after marriage she has been liable to have attacks of sore mouth and tongue, falling of the hair, and slight rash; these have often occurred during pregnancy.	Somewhat cachectic.
29	P. 35 847	Mrs. Tomlinson. May 19, 1855.	40 (?)	Has had 6 children, 4 of whom are living; the youngest 2 have congenital syphilis but the two former do not appear to have had suspicious symptoms; history imperfect.	Not noted.
30	P. 81 1022	Mrs. Portelli. June 20, 1855	45	Her daughter, now aged 17, has congenital syphilis; an elder infant is described as having died of it; these were the only 2 she ever had; her husband, now dead, is deseribed as having had nodes on the cranium; 2 years after marriage she was under Mr. Luke's treatment in the London Hospital, on account of a troublesome rash, which was deemed venereal.	Pale and of syphilitic cachexia.
31	P. 87 1046	Georgina Baugh. June 23.	47	Has had 7 children and 1 miscarriage; 6 children are living (1 having been born dead), and 1 cannot make out that, excepting 1 (now aged 12) whom she brings suffering from congenital syphilis, that they have had suspicious symptoms; her husband is "liable to eruptions;" has been cachectic since marriage	Pale and cachectic.
32	P. 114 1139	Mrs. O'Brien. August 13, 1855.	30	Married 6 years, and has had 5 children; of these 2 were dead born, 2 died at about 2 months, with all the symptoms of congenital syphilis, and the youngest, aged 10 months, now has that disease; she has been much out of health ever since her marriage; but, excepting her present disease, does not appear to have had specific symptoms.	Pale and cachectic.
33	O. 156 2060	Sarah Fossey. Feb. 16, 1856.	33	Has had 3 children, of whom the youngest, now aged 10 months, suffers from congenital syphilis; history imperfect.	Somewhat cachectic.
34	O. 163 2076	Ann Chamberlayne. Feb. 20, 1856.	44	Has had 11 children, 6 of whom are dead, but none of them appear to have shown suspicious symptoms; 3 died of scarlatina; 2, aged 5 and 6 years, are now attending me for specific symptoms, which, however, have only been present for a few months.	Markedly syphilitic cachexia.
35	O. 261 2365	Mrs. Dance. April 9, 1856.	45	Twice married; never had any illness until she became pregnant by her second husband, 16 years ago; during the pregnancy she lost her hair, and had leucorrhœa; after delivery an eruption and sore throat followed; her infant had syphilis, and still (now aged 16) shows symptoms at times; her second child also had syphilis, and died of measles, aged 4.	Pale, earthy complexion, and marked syphilitic cachexia.
36	N. 5 2462	Margaret Smith.	28	Has had 4 pregnancies, 2 ended in still births, and neither of the living children have had suspicious symptoms.	Healthy-looking and florid.
37	N. 133	Sarah Garner. July 22, 1856.	26	Married 8 years, and quite well till marriage; has had 3 children, one of whom has died of syphilis, and both of the others still suffer from it; she has had sore tongue and mouth, and lost her health as soon as she conceived, and ever since has suffered from syphilitic symptoms.	Cachectic and very pale.
38	N. 37 2559	Mary Anne Taylor. May 24, 1856.	22	Married 2 years, and confined of her first child 11 months ago; the infant has syphilis; about 2 months after confinement she began to suffer from leucorrhœa, and subsequently lost her hair.	Looks well.

Present Symptoms.	Previous Symptoms.	Had any Secondary Symptoms ever occurred?	Result of Treatment.	Evidence that the Symptoms really were Syphilitic.	Remarks.
Acutely inflamed pharynx; ulcers in both tonsils; condyloma on dorsum of tongue; pityriasis on chest.	Sore throat and loss of health.	No.	Not known.	The conjunction of condyloma on tongue, with sore throat and loss of health.	—
Falling of the hair; syphilitic cachexia.	None; beyond gradually increasing cachexia.	No.	Not known.	Her infant was undoubtedly syphilitic.	—
Patch of syphilitic papulos on the forehead and extending into the scalp; hair very thin.	Loss of health during pregnancy, and falling of hair; the patch on the forehead has existed a year.	No.	Was cured by a four months' specific treatment, and regained her health.	The characters of the eruption were positive, and it was cured by specific treatment.	An instance of syphilis communicated by an infant which did not itself show any signs of disease.
None. She attends on account of her child.	Weakness, etc., during pregnancies, and, on one occasion, rash and falling of hair.	No.	None adopted.	Her infant was syphilitic.	In this case the patient did not lose her general health, and the symptoms were very slight.
Psoriasis on the face and inflamed eyelids; sore ears; hair falling off.	Loss of health during pregnancy; has been liable to psoriasis at times for 10 years.	No.	Was much benefited by specific treatment.	Her infant had syphilis; her own symptoms were suspicious and were benefited by specific measures.	—
Syphilitic fissures at the angles of mouth; congested pharynx.	Syphilitic cachexia gradually increasing; very ill during pregnancies.	No.	Regained her health under a long iodine treatment.	Her infants were syphilitic; her own symptoms were very suspicious, and they disappeared under specific treatment.	In a third pregnancy, she had a relapse of symptoms, and again came under treatment.
Double mammary abscess; no specific symptoms.	Had sore mouth and tongue, with cachexia and loss of strength during pregnancy.	No.	No specific treatment adopted.	Her infant was syphilitic and the symptoms she had during pregnancy were of a very suspicious nature.	—
Condylomata about the tongue and mouth; cachexia; loss of hair.	Had "a rash" and severe leucorrhœa after first pregnancy; cachexia; was delicate before marriage, but lost her health most noticeably after conception.	Yes.	Was cured by specific treatment.	The character of the disease. The fact that her husband had the same, and that specific treatment cured it.	—
Syphilitic psoriasis on various parts; leucorrhœa.	Psoriasis palmaris and psoriasis in various parts of the body; leucorrhœa; cachexia.	Doubtful.	Was cured by specific measures.	Her husband and infant known to have had syphilis; the character of her symptoms and their cure by iodine.	—
Sore tongue and mouth with white markings; loss of hair; scanty papular rash; she is now pregnant.	The same as her present ones; the group has often occurred together, disappearing for a time and then relapsing.	No.	Recovere under specific treatment.	Their character and conjunction. Their cure by specific measures.	Mentioned in the paper as an instance of the mother receiving syphilis from her children, they, meanwhile, not manifesting any symptoms of the disease.
Lichen of very suspicious character.	Has repeatedly had a lichenous rash.	No.	Not treated.	The nature of the rash itself, coupled with the circumstance that she had borne syphilitic children.	This patient came under observation only in connexion with her children.
Syphilitic cachexia; liability to nocturnal achings in different bones.	A rash 2 years after marriage; cachexia.	No.	Much benefited in general health by specific treatment.	The cachexia, the account of rash having occurred, and the circumstance, that she had borne syphilitic children. Relief by specific remedies.	Some of the facts in this case are given from memory, on account of defects in my notes.
Well characterised psoriasis palmaris for one year; cachexia.	The psoriasis palmaris has existed a year; excepting cachexia no other symptoms have ever occurred.	No.	Much gain from specific measures.	Her husband's liability to rash, the undoubted character of her own disease, the syphilitic taint shown in one of her children, and the result of specific treatment.	—
Well characterised syphilitic fissures at the angles of the mouth; syphilitic cachexia.	The fissures have been present some mouths, and the cachexia has existed almost since marriage.	No.	No record.	Her children had all been syphilitic. Her cachexia was marked and the nature of the fissures undoubted.	This patient stated that her husband was a very healthy-looking, robust man.
Syphilitic psoriasis and papules at flexures of the elbows and on the neck; blotches on the face, and eczema around the nipples.	No record; those described were stated to have existed only a month, and had probably been determined by the asthenia of over-lactation.	No.	Improved under specific measures. Not noted to the end of the case.	The symptoms were well characterised; her infant was syphilitic, specific treatment was of benefit.	—
Fissures at the oral angles, with white markings; psoriasis and acne on the face; node on the left ulna.	Has long been cachectic, but has shown the specific symptoms for six months only.	No.	Improved greatly under a specific plan, but did not attend till cured.	The symptoms were well marked as also the cachexia; two of her children had syphilis; specific treatment was beneficial.	The woman stated that her husband was a very healthy man. They had been badly fed of late, and it seemed to be an instance of the outbreak of a latent syphilitic taint during debility from under-feeding.
Many scars of former ulcers; nodes on the humerus, ulna, and cranium; sores on the hard palate; cachexia.	Has been liable to like symptoms to the present for 16 years past, and has been under the care of various Surgeons, all of whom have told her that the disease was venereal.	Yes (?)	Cured by a long course of iodine & Plummer's pill.	The symptoms were well marked; her children had both had syphilis; specific treatment cured her.	—
Extensive ulcerative destruction of the soft palate of six months' duration; fistula lachrymalis, and suspicious ulceration about the opening.	Has not had any symptoms whatever, excepting those present.	No.	The throat quickly got well under iodine treatment.	The character of the ulceration, and its speedy cure by specific measures.	In this case two of the children at least appeared to have wholly escaped.
Large node involving the lower part of the femur; small node on the tibia.	There are scars of serpiginous syphilitic ulcerations in various parts; liable to unmistakable symptoms ever since first pregnancy.	No.	Got quite well of all symptoms under specific treatment.	They were unmistakable as also those of her children; the specific effect of specific measures.	—
Large, warty condylomata around the anus and within the vulva; superficial and healing ulceration in tonsils and soft palate.	The symptoms all date since her confinement.	No.	Got well under specific treatment.	They were unmistakable, and were cured by specific treatment.	It is interesting to observe that, in this case, the symptoms did not break out till after confinement.

No.	Reference.	Name and Date.	Age.	History of Conceptions.	State of General Health.
39	M. 21 H.S.D.	Emma Page. November, 1849.	35	Married 16 years; enjoyed excellent health until when 8 years afterwards she fell pregnant; from this time lost her health and was never well again; never conceived again.	Of earthy complexion; formerly a very robust woman.
40	XI. 25 H.S.D.	Sarah Morfew. April, 1852.	22	Married 20 months; and has a syphilitic infant aged 9 months; was very ill during pregnancy, lost her flesh and suffered severely from nocturnal pain in the head; regained her health after delivery.	Delicate and cachectic.
41	IX 18. H.S.D.	Mrs. Thompson. January, 1850.	26	Married 2 years; 7 months after marriage had a still-born child, after which an eruption, sore-throat, and loss of hair followed; next a miscarriage occurred; The third pregnancy resulted in an infant which now has syphilis; after each delivery she lost her hair.	Cachectic.
42	IX. 28 H.S.D.	Mrs. Davies.	33	Has had 8 children, 6 of whom are living; all small and delicate, but the youngest only has had specific symptoms, and it now suffers from them; during the last pregnancy she lost her hair.	Cachectic.
43	IX. 29 H.S.D.	Mrs. Shrats.	23	Married nearly 2 years; has one child which suffers from syphilis; during pregnancy had severe leucorrhœa, and "boils" about the vulva.	Stout, but pale.
44	VIII. 38 H.S.D.	Mrs. Cochran. November, 1850.	34	Married 8 years; has had 5 children, of whom the youngest only is living, and it now suffers from syphilis; has been liable to leucorrhœa and sore-throats during pregnancy.	Florid, stout, and healthy-looking.
45	VIII. 34	Catherine Hawks. October, 1851.	22	Married 14 months, her only child aged 4 months; has syphilis; during pregnancy she lost her colour and her hair fell; she had an eruption, and suffered from profuse leucorrhœa.	Somewhat cachectic.
46	—	Mrs. Connell. August, 1851.	28	Has had 10 pregnancies; the first three infants were still-born prematurely; the 4th, 5th, 7th, 8th, and 9th, all died in early infancy; the 6th is living and never had a suspicious symptom; the 10th has congenital syphilis; during most of her pregnancies she suffered from white sores in the tongue.	Healthy and stout.
47	VI. 23 H.S.D.	Mrs. Myers.	34	Her first and second children both had syphilis; she did not lose her health, but is very liable "on taking cold" to have sore tongue and throat and "scorbutic spots;" her husband, a sea-captain, was away from home 6 years, and a child born after his return had no symptoms.	Healthy-looking and stout.
48	V. 3 H.S.D.	Mrs. Crow. H.S.D.	38(?)	Has had 8 children; the youngest aged 6 months now has syphilis, but none of the others appear to have had suspicious symptoms; syphilitic ulcers on the leg formed during her last pregnancy.	Healthy-looking.
49	N. 203	Frances Needham. Metropolitan Free. October, 1856.	42	Married 14 years, had a miscarriage at 7 months, soon after marriage, and since that believes she has never conceived; was very ill about the time of miscarriage, and has never been strong since; no specific symptoms until latterly.	Stout and moderately florid, but has greatly lost flesh.
50	—	Mrs. Thompson. H.C.D. 1850.	32	Married 6 years, and has borne to her husband, who suffers from tertiary syphilis, several children, who have died of the disease; during pregnancy she is always ill, and has sore tongue, &c.	Fair health, but has lost health much since marriage.

NOTES AND QUERIES.

He that questioneth much shall learn much.—Bacon.

No. 131.—Leeching.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—I find the following in my note-book, from a paper by a Dr. Butge in an old German review:—

"If the hinder part of a leech be cut off before it is applied, it will usually remain on for several hours, the blood constantly dripping away from the wound (like the water from Munchausen's horse). A leech thus treated will suck as much as four others, if too much of the tail have not been taken off, and if the operation be not performed with blunt scissors."

I have never tried this experiment,—have any of your correspondents? I am, &c.

A Retired Practitioner.

Isle of Mull, Oct. 3, 1856.

No. 132.—Tanned Human Skin.

Sir,—I remember hearing or reading that human skin has been tanned and used as leather, and I was told that in the museum of one of our County Infirmaries the history of some murderer was collected by an eccentric Surgeon, and bound up in the tanned skin of the culprit. I am not anxious to know anything of this culprit, but I should like to hear something about his skin, and have some biographical notice of the Surgeon who added such a treasure to his museum.

I am, &c. K. Gilbert.

Portsmouth, Oct. 3.

No. 133.—Old Leper Hospitals.

Sir,—Near Berkhampstead, in the nursery garden of Mr. Lane, there is a beautifully clear spring, known as St. John's Well, said to be the only remnant of an hospital for lepers dedicated to St. John the Evangelist. Some trees which used to stand in front of it are still called the "Spital trees," and a meadow near the "Spital mead." Mr. Lane says, that, in digging, the remains of foundations of buildings and human bones are constantly found very near the surface. The hospital appears to have been founded in the reign of King John.

Perhaps some of your numerous correspondents would be able to tell us something about these old hospitals for lepers. Was leprosy so very prevalent a disease among our forefathers? or did any obstinate skin-disease place the unfortunate sufferer in the proscribed caste of lepers?

I am, &c. A Country Surgeon.

October 2.

No. 134—A Question of Race.

Sir,—In Emerson's "English Traits" I find this sentence: the English "are bigger men than the Americans. I suppose

Present Symptoms.	Previous Symptoms.	Had any Secondary Symptoms ever occurred.	Result of Treatment.	Evidence that the Symptoms really were Syphilitic.	Remarks.
Nodes over the tibia; ecthyma; sloughing ulcer on the leg; leucorrhœa.	For several years liable to nocturnal pains in the bones since pregnancy; cachectic and liable to leucorrhœa.	No.	Was cured by specific treatment.	Its character and the combination of symptoms; the effect of treatment.	Her husband was described as an ailing man, never free from eruptions, and her child had syphilitic cachexia.
None; excepting some degree of cachexia.	Severe periosteal pains in the head often kept her awake at night; before pregnancy she had not had the least of such pain.	No.	None adopted.	The nocturnal character and severity of the pericranial pain; the cachexia; the known disease in her infant.	Husband described as a very healthy man, but much troubled with boils. She comes solely on account of her infant.
None; excepting cachexia and loss of hair.	Had sore throat, eruption, and loss of hair after first pregnancy, and again during the third.	Yes.	None adopted.	The group of symptoms and their connection with syphilitic children.	Came under observation solely on account of her child.
Has a rash of doubtful character on one foot.	Five years ago had ulcerated sore throat, of which a large scar remains.	No.	None adopted.	The character of their symptoms and their association with syphilitic offspring.	Came under treatment only on account of her infant.
None.	Had purulent leucorrhœa, loss of health, and eruption of boils during pregnancy.	No.	None adopted.	The suspicious group of symptoms taken with the fact that her child was syphilitic.	She had recovered when under observation. The infant had the disease mildly.
None.	Has had sore throat and leucorrhœa several times, and once loss of hair.	No.	None adopted.	The group of suspicious symptoms, the disease of her children.	Husband reported a stout healthy man.
None; excepting cachexia.	Had an eruption, with loss of health, falling of hair, and leucorrhœa during her pregnancy.	No.	Gained health under treatment by the bichloride.	The group of symptoms taken in connection with the fact that her offspring was syphilitic.	—
None.	Had sore tongue with white markings during each pregnancy.	No.	None adopted.	The white markings on the tongue; the circumstance that her children were syphilitic and that the husband had suspicious symptoms.	Her husband, a sailor, was stated to look well, but to suffer much from pain in the head, and shin bones, much worse at nights.
None.	Liable to sore tongue, sore throat, and a suspicious eruption.	No.	None adopted.	The group of suspicious symptoms; her children were syphilitic.	Husband described as a remarkably healthy man.
Ulcers on the leg of specific appearance.	Excepting the sores on the leg, which appeared 9 months' ago, she has had no symptoms.	No.	The sores quickly healed under treatment by the bichloride.	The character of the sores, their cure by mercury, and the fact that her youngest child was syphilitic.	Husband believed to be quite healthy.
Œdema of left leg; tenderness over the tibia, and severe nocturnal pain; scattered syphilitic papules on the same leg and thigh.	For several years past has been liable to cracks at the angles of the mouth, the scars of which remain; liable to sore throat; has repeatedly missed menstruation for two or three successive periods, and then had a profuse flow.	No.	Treatment but just commenced.	The character of the rash, and of the nocturnally painful swellings of the periosteum; the fissures at the angles of mouth.	She stated that her health had been most excellent before marriage, and had deteriorated greatly since. The outbreak of specific symptoms seemed to have been determined by the climacteric period.
White-edged sores on the tongue.	In 3 pregnancies I treated her on account of sore tongue; she had also leucorrhœa.	No.	The tongue was always cured by iodide, and her last child, born after a long course, lived.	The appearance of the tongue was very marked; her husband and children had syphilis; the effect of treatment.	This case is given from memory.

a hundred English, taken at random out of the street, would weigh a fourth more than so many Americans." Perhaps some of your readers on this or the other side of the Atlantic could tell me if there are any facts tending to prove the truth of Emerson's assertion and supposition. If true, a wide field of inquiry is opened.

I am, &c.

Bristol, October 7, 1856. F.R.C.S.

No. 135.—Arterial Plugging by Fibrinous Clots.

Sir,—I am preparing an essay on arterial plugging by fibrinous clots, etc., detached from the heart or great arteries. I don't know whether I have succeeded in finding out all cases published in English literature. Are there any on record besides those published by Messrs. S. Kirkes (Medico Chirurgical Transactions, Vol. XXXV.), Sibley (*Medical Times and Gazette*, 1852), Tufnell (*Dublin Quarterly Journal*, 1853), R. Bennett (*Assoc. Medical Journal*, 1856), Burrows (*Medical Times and Gazette*, 1853), and Simpson (Obstetric Works, Vol. II.)? Have Mr. Fergusson's attempts at curing aneurisms by producing a similar condition (*Lancet*, September, 1855), been persevered in, or found any follower?

The insertion of this in your valuable "Notes and Queries" will oblige,

Yours, &c.

E. Fritz,
Assistant-Surgeon
at the Strasburg Civil Hospital.

Strasburg, Oct. 6, 1856.

No. 136.—Cell Development.

Sir,—Can any of your readers inform me through your columns where I may find a paper by Mr. T. H. Huxley, "On the Theory of Cell Development."

I am, &c. Inquirer.

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Medical Times & Gazette.

SATURDAY, OCTOBER 11.

OUR GREAT ONES OF THE PAST.

We propose, in future numbers, to give occasionally a brief history of the life and deeds of one or other of the illustrious men to whom Medicine in past times has been indebted for its advancement, and for its existence as a science. We shall try, in these records, not merely to trace out the biographies of these men, but to epitomize their works; thus shall we hope to bind the past with the present, and by following out the progress of our science in the time that has been, throw a ray of light, however feeble, over the time that is to come.

The labour we now undertake is called for. It is called for because our historical Medical literature has become imperfect; because we have got into the habit of recognising our predecessors by their names only; because, in our absence of knowledge in regard to what some of these our predecessors have done, we have lost the key to much that is original, and are going on rediscovering and toiling hard at the eduction of many truths which have already been brought before the world. Lastly, the work is called for, because in the field of Medical Biographical researches we shall find the brightest, the purest examples of men who, in the midst of innumerable difficulties, and often in the face of persecution, have neglected what one would call their fortunes, to devote their lives the more exclusively to the pursuit of truth for its own sake and the good it supplies.

In the work that is before us we shall follow no chronological method, but shall be anxious rather to select for each biographical sketch some man who has accomplished something that has lived and lives—some one who has given a new reading to some abstruse problem in our science. Such a one was Harvey, whom we all recognise; but there have been many Harveys whom few recognise; and the mission of these it will be our business to interpret.

As beginning at home with this task, we shall consider in the first series of memoirs, the men of "The English School," and while we shall in no wise exaggerate the labours of our countrymen, nor offer any unfair comparisons, we shall feel confident of showing that this country, "Paradise of quackery" though it may be, need not in any way be ashamed of its Esculapian children. The English are sometimes said to be wanting in originality and imagination; to be the borrowers of French and German ideas, and the elaborators and finishers of these. However true this may be in general science, it does not obtain as a truth in the science of Medicine. Harvey discovered the circulation of the blood; Priestly discovered oxygen; Black, the chemical law of respiration; Jenner, vaccination. In the whole history of physic are there any four other discoveries of the same weight to be found? They are the discoveries of Englishmen.

If there be one exercise of the mind more wonderful and more pleasing than another, it is that exercise of memory and of imagination which enables us to take up from the pages of the historian the once living characters which he has brought again into existing time. To see these characters as it were face to face, to read their thoughts and words, to know them better than they knew themselves, to commune with them, and to see them while standing isolated from their fellow-men, breathing forth an influence over multitudes whom they could never know. We boast not of being able thus to present to our readers the men who, in medicine, have preceded us, and have made for us a science. But if we can succeed in giving to the memories of some of these the honours that are due to them; if we can show in outline what have been the mental characteristics of those who have built up and kept in restoration the Esculapian temple; if it be in our power to restore some useful, but lost, facts relating to practice; and, lastly, if we can, in some measure, relieve for a time the monotony of ordinary Medical literature, and give to the wearied Practitioner an occasional half-hour's reading that shall amuse as it instructs and instruct as it amuses, the intention of these memoirs will be fulfilled.

THE WEEK.

Week after week cases are occurring of accidental poisoning, yet no check is placed upon the sale of poisons. Only last week we published a case where a young woman was left by a drunken druggist to dispense deadly drugs, and this week we have to repeat the old story. In the small village of Wadworth, a woman went to a small shop kept by a person named Gregory, to purchase a penny-worth of paregoric, and was supplied with laudanum by mistake. She gave some of this to her child, believing it to be paregoric, and the child was killed. A coroner's inquest was held and a verdict returned "accidentally poisoned;" yet Gregory was dismissed with a simple reprimand and caution from the coroner. Something must be done to check this growing evil. In the letter of our Dublin Correspondent, published last week, we find that in Dublin all poisonous substances are directed to be kept and sold in angular bottles. This is a simple and useful precaution, and one which we hope to see followed on this side the Channel.

One of our Continental brethren, M. Scouteten, has lately brought out, in a work on ozone and its properties, the first distinct treatise on this interesting and debateable subject. The author believes ozone to be electrificd oxygen, but retains the term ozone, because custom wills it. Among other opinions and facts given by M. Scouteten, the following deserve mention:—Ozone is the most powerful oxidating agent known. It is not developed in crowded and filthy localities. It is developed freely on mountain heights, over water, and wherever vegetation is luxuriant. The most common chemical agent in preventing the action of the ozonometer is ammonia. An excess of ozone in the atmosphere is a cause of catarrh, bronchitis, pneumonia, and other diseases of the hyperinotic type.

The Society of Arts has just issued a list of 216 subjects for premiums. They relate to new processes in the Arts, or methods of manufacture, or new mechanical arrangements by which these may be simplified, or labour saved, and of novel application of raw materials to useful purposes. Any of our readers interested in these subjects, would do well to apply to the Secretary of the Society for a list. The office is in John-street, Adelphi.

Some surprise has been excited by a statement made by Dr. Chambers in his Introductory Lecture at St. Mary's Hospital, that the clergy and lawyers are "more respected, and, therefore, more independent and gentlemanly in manners than we are." We feel bound to express our belief, that this opinion is by no means a correct one. Commencing with the very highest ranks of the clerical and legal professions, we should not be afraid to compare any of the great dignitaries of the Church, or even Brougham and Lyndhurst, still less Thesiger, Kelly, or Cockburn, with such members of our own Profession as Brodie, Clark, Forbes, Latham, Simpson, Stokes, Symonds, and many other Physicians and Surgeons of London, Edinburgh, Dublin, or the Provinces. We are fully convinced,

that men like these are as much respected, are as thoroughly independent, and fully as "gentlemanly in manners" as any clergyman or lawyer in the kingdom; and, as far as our own observation extends, a comparison made between the members of the great body of our Profession on the one hand, and the mass of clergy and lawyers on the other, would lead to a similar conclusion.

Another instance of injustice to a member of our Profession has recently occurred, in the dismissal, or rather in the forced resignation from his office, of Mr. Miller, the Medical Superintendant of the County Lunatic Asylum, Bucks. On entering on his duties four years ago, Mr. Miller had to contend with all the difficulties incident to the establishment of order and arrangement in an Institution newly opened. By dint of persevering industry he has now made this asylum to rank among the first class of these institutions, and his conduct has repeatedly and justly called forth the warmest acknowledgments from the Commissioners and Visiting Magistrates. Latterly, however, a new managing committee have thought proper, for some as yet indefinable reason, to call Mr. Miller before them, to ask him some mysteriously leading questions, the bearings of which he did not comprehend, and afterwards, without any explanation, to pass against him a vote of want of confidence. Upon this Mr. Miller sent in, rather hastily perhaps, but most excusably, his resignation; but thinking afterwards that it would be better to hear the charges against him openly explained and discussed, he forwarded a request that the resignation might be withdrawn. The request was refused, and Mr. Miller, after all his exertions, is ignominiously dismissed from his home, without being openly accused of any fault, and having the suspicion only that the statements of a dismissed menial have been accepted by the committee as affording a sufficient reason for their decision. Such are the facts, as they have reached us. It remains to be seen what explanation the magistrates will give of their conduct.

A case has lately been decided in Malta in which unfortunate differences of opinion among Members of our Profession have led to the escape of a murderer from capital punishment. A British officer, of sterling worth and ability, Captain Graves, was stabbed in the abdomen by a Maltese boatman. The man not only confessed his intention, but gloried in his deed. Death followed the wound in sixty hours. Of twenty Medical men examined, all agreed unhesitatingly that death had ensued from peritonitis, which had followed the wound inflicted; but two, Dr. Portelli and Dr. Laferla, asserted, that the wound was not necessarily mortal, but that death had been caused by improper Medical treatment. This led to the verdict, "Guilty of some bodily harm, wilfully inflicted upon the person of Captain Graves, followed by death, owing to a supervening accidental cause, and not to the nature or consequences alone of such harm." The Maltese jury went with their countryman against the British Civil, Naval, and Military Surgeons who had attended the deceased. The murderer was sentenced to nine years' labour at the public works.

REVIEWS.

The Census of Ireland. Parts V. and VI., including the Tables of Deaths, and the General Report. Blue Book. Folio.

We have already, on more than one occasion, had to draw the attention of our readers to the publications of the Irish Census Commissioners. The results of further labours of these indefatigable investigators are now before us, constituting three folio volumes of the largest dimensions. They include the "General Report" of the Commissioners, and a most elaborate series of tables of deaths, with a general analysis, historic, antiquarian, and medical, of the various circumstances inducing or modifying mortality on a large scale in Ireland from the earliest periods. The volume (Vol. I., Part V.), embracing the latter series of details, is one of a class which, we believe, is hardly to be paralleled in the existing English literature of Medicine. It partakes more of the character of the profound and elaborate historico-medical "opera" of the older schools. In several important respects it is a work which offers a model that may be imitated with great advantage in this country. In it we find, thrown into convenient form for ready reference, a body of annals extending from the earliest period, and replete with all the details of famine, plague, pestilence, and mortality which the most recondite chroniclers have preserved.

In the parts of the great work resulting from the last Census of Ireland, now presented to us, the Medical Profession in the sister country has to boast the production of a veritable *opus magnum*, combining that polyglot research, historic lore, and fertility of detail, down to the most recent periods, which are seldom, if ever, equalled, except in the learned volumes of our German brethren. Indeed, it may be said that, to the able Assistant-Commissioner, Mr. Wilde (the eminent oculist and aurist of Dublin [a]), the English language is indebted for the first and most complete *resumé* of the history of Medicine in an important portion of the British empire, compiled from original notices, annals, and authorities which has yet appeared.

Some of the results of his labours, which the Assistant-Commissioner presents to us in Volume I. of part V., are such as, perhaps, at no previous period it would have been possible to give to the world. In fact, till the genius of Curry and O'Donovan had shed light on the time-worn, smoke-stained, and, to the eyes, all but illegible parchments of the 9th, 10th, 11th, and 12th centuries, the physiological and pathologieal annals of Ireland must have remained unwritten and unexplored. Yet the value of these records to the Medical history of a great and remarkable race, and, indeed, to that of the human family generally, cannot be overstated. As stated by Mr. Wilde, no country of northern Europe can adduce such full, early, and complete records of the various scourges with which a people is affected from time to time.

It is not as matter of historic or antiquarian interest alone that such details of famine, plague, and pestilence as the Irish annals supply us with are of importance. A study of the records which Mr. Wilde has put before us in such convenient and acceptable shape, shows us the almost direct and necessary connexion between certain vast groups of morbid phenomena, destructively invading masses of the population, and holding a deadly sway, often for periods of years, and certain antecedent circumstances largely affecting the state, habits of life, and physical conditions of the people. Considered in this way, reliable Medico-historical records pass far beyond the province of the Medical inquirer; they constitute, in fact, great political lessons, which have not the less import that hitherto they have been all but neglected by the Physicians of the body politic—those to whom the care of the State is entrusted. Sooner or later, however, their value in this point of view must be acknowledged, and their indications acted upon. And we regard it as no small step in this direction—so obviously a right one—that such records have found a place in a parliamentary Blue-Book; and that a Government machinery (the Census Commission of Ireland) has been earnestly engaged in their analysis.

Of the extent and importance of the materials available for the elucidation of the Medical history of Ireland, some idea may be formed from the fact, that a table, embracing the chief phenomena and circumstances arising under this head, and dealing with them in only a very brief and summary manner, occupies very nearly 300 pages folio. The "Table of Cosmical Phenomena, Epizootics, Famines, and Pestilences in Ireland," extends from page 41 to page 333 of Volume I. of Part V., the print being close and the text solid, or nearly so.

In this volume, obviously the almost exclusive production of the Assistant-Commissioner, a brief critical account is given at the outset of the chief sources of Irish history from which

(a) It may not be known to some of our foreign readers that the able and indefatigable Commissioner of the Irish Census and the eminent oculist of Dublin are one and the same person. The fact is such, however, and the author of these two folio volumes (among the most ponderous tomes which medicine in any age or country has produced) conducts one of the most successful and extensive practices which this branch of the Profession affords.

materials have been drawn. Had the nature of the work allowed of it, Mr. Wilde could, we doubt not, have gone into far more complete detail respecting these great Celtic documents. As it is, quite sufficient is given to satisfy the most sceptical reader as to the amount and nature of the sources on which the writer of the Report has drawn.

But it is not in reference to remote historic times, or to periods of great antiquity, that the details of this Report furnish the most valuable and the most striking lessons. That portion which relates to the Medical history of the present century will be found replete with matter of the highest political moment. In this great chronicle are to be found detailed and analysed accounts of the famines and their attendant pestilences, which have in such close succession devastated the sister country from the middle of the eighteenth century to the last dire visitation.

To give an effective analysis of a work of the nature and extent of the Irish Census Report would require an amount of space not available in our columns. We must, therefore, content ourselves with a few extracts touching some of the more important matters with which it deals. Our extracts shall be such as to show how the more remote and the more recent periods of Irish Medical history are dealt with.

One of the earliest forms of epidemic pestilence noticed in the Irish annals, is that usually denominated the Buidhe Chonnaill, but also known by other terms.

"All these terms," says the Report, "evidently show that one of the most striking manifestations of the disease, was the yellow colour of the skin. Dr. Short, referring to this plague as it affected Europe in the middle of the sixth century, says that 'bile was redundant, men looked like charcoal-wood, their countenance was senseless and stern.' We find more difficulty in our analysis of the term Blefed, or Bleffeth, applied to it by some annalists, which was in all probability an imported name, and may be, by a slight transmutation of letters, the Irish acceptation of the Welsh word Cleved—sickness generally; and to this day, in all cases of epidemic disease, the peasantry of Ireland say the person is affected with 'the sickness.'"

"This great plague is said to have commenced in Ireland, at Glasnevin, now a village a short distance to the north of the City of Dublin, and where at that time St. Mobhi had his seminary, and numbered Columbkille among his pupils. It spread from thence upon all sides over the island, and carried off many men of high repute, whose names are specified; and the references to which, as given in our Tables of Pestilence, pp. 46 and 47, not only authenticate the circumstance, but leave a record of the localities which it visited, and the duration and extent of the epidemic."

"Contemporaneous authorities not only confirm our Irish records, but serve to throw more light upon the nature of the affection. The Welsh annals in particular are explicit and voluminous upon this subject. It is in their records called Vale Valen, the dark coloured yellowness, or the yellow plague, of which Gwynedh, King of North Wales, died in A.D. 547, &c."

"From the foregoing statements," continues the Report, "we think we are justified in believing that this great and widespread pestilence, which marked a special epidemic constitution in the middle of the sixth century, was of the nature of that disease known to the moderns as yellow fever, and of which some instances have occurred in recent times in Ireland: although from the description which Gibbon has collected from the early writers, as it appeared in the Levant, it would seem to be a true bubonic plague; but it is not improbable that the one might have degenerated into the other."

More than one epidemic of this yellow plague is met with in the Irish annals: a second visitation occurred in the succeeding century (the 7th). But it would be impossible for us to follow Mr. Wilde in his accounts of this and other pestilences of recent times.

The part of this Report which will be looked to with, perhaps, most immediate and vivid interest, will be that which chronicles the mortality by famine, fever, and dysentery in the dire visitation of the last Census decade. We shall give briefly some of the chief results of the analysis of the tables of deaths. And first, with regard to dysentery, the report observes:—"Next to fever, this disease formed the most extensive cause of death of the epidemic and contagious class during the ten-year period ending March, 1851; it having prevailed as an epidemic during that time, to an extent unparalleled in the Medical annals of this country. In the reports on the tables of deaths in 1841, dysentery and diarrhœa were not separated, the deaths from both being classed under the latter head; but during the period embraced by that inquiry, no epidemic of dysentery having appeared, it is more than probable that the cases tabulated under diarrhœa, and which were mostly returned under the popular name of bowel-complaint, were really deaths from diarrhœa,—the sequel to so many other diseases. The total deaths returned under diarrhœa, including dysentery in the returns for 1841, were 10,744; which by those made to us in 1851, as many as 93,232, deaths were from dysentery alone, in the proportion of 75·1 females to 100 males; giving a ratio to deaths from all causes of 1 in 15. As this disease formed one of the most notable elements of the recent great pestilence, we have already reported upon its rise, progress, and local distribution, in the introductory matter at page 250;" and to this we must refer our readers for further details of this subject.

The following important passages will be read with deep interest:—"In the notice on Fever in the Report upon the Tables of Deaths in the Census of 1841, we find it written—It must strike the Medical historian and statician as remarkable, that, when the Irish records of this class of affections are accurately examined, it will be found that, notwithstanding all that has been written and asserted upon the subject of atmospheric influence, want, and distress, etc., conducing to the propagation and spread of disease, fever in particular has raged decennially for the last 150 years. Not that it has become epidemic or fatal exactly upon the tenth year, but from the eighth to the twelfth, with an interval of from 6 to 8 years."

Although the wording of that statement may require some slight modification, still we find, from the very extended observations which we have made, that the principle which it propounded of the periodicity of epidemic pestilences in Ireland is fully borne out. The total deaths from fever, afforded by the Census Returns of 1841, amounted to 112,072, the sexes being in the proportion of 86·14 females to 100 males, being 1 death in every 10·59 of the mortality from all causes, and 1 in 3·4 of them in the total class of epidemic diseases. According to the returns for 1851, the deaths from fever were nearly double those of the former period, being as many as 222,029, in the proportion of 88·9 females to 100 males." . . . . "Compared with the deaths from all causes, fever gives by the present inquiry the proportions of 1 in 6·1, and to the total specified causes 1 in 5·5."

Under the head of "Starvation," a large number of deaths is returned, but we are confident it falls far short of the reality. Cases of this kind are just those which no official record can reach. According to the Report, "the deaths attributed to starvation upon the forms received in 1851, amounted to 21,770, the sexes being in the proportion of 70·6 females to 100 males, and the total deaths from this cause being to the general mortality 1 in 63."

This statement, however, must be far short of the truth. The harrowing details given in the body of the Report leave no doubt that multitudes perished by the wayside, and in the cheerless Irish hovel, whom neither policeman nor coroner's inquest ever took note of. This is true likewise of the figures which report the deaths from disease. Not to speak of those who carried the mortal pestilence upon them into the emigrant ship, thousands were swept off by fever and dysentery whose fate will be ever untold. For the present we must take leave of the Census Commissioners and their Report, regretting that we have not had space to do more full justice to Mr. Wilde's great "Sepulchretum," for such it truly is, and less figuratively so than that of Bonetus.

West Indies.—Sickness in the West Indies has nearly disappeared. At St. Thomas's there were a few cases of cholera, at the departure of the last mail.

The Population of Russia.—According to the Census taken by the Emperor at the time of his accession to the throne, the total population amounted to 63 millions. The population of the towns, the middle and lower classes, 5,000,000; the population of the country parts, 45,000,000. At the accession of the Emperor Nicholas, the Census then taken only gave a population of 51,000,000. The Russian empire, according to the same document, contains 112 different people, divided into twelve principal races.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE REVIVAL OF LEECHES.

The French Minister of War has recently published an official circular, detailing the proceedings to be adopted in the French Military Hospitals, as the result of prolonged and numerous trials.

As soon as leeches have come off, they are to be placed in a mixture consisting of 1 part of vinegar, and 8 of common water, at a temperature of from 50° to 68°. Parcels of eight or ten should be placed in from 3 or 4 ounces of this, so that the leech may have room to plunge and submerge itself. Scarcely is it introduced than it begins disgorging itself, gradually losing its vivacity, and becoming soft to the touch. It is then removed from the bath, and gently pressed towards the mouth between the thumb and index finger, by a sort of flattening movement, made without elongating the body, until all the blood swallowed has been evacuated. If the leech cannot be easily emptied in this way, it is to be replaced for a moment in the acid bath. The acidulated water must be changed for every parcel, so that about a quart is required for 100 leeches. After disgorgement, the leech is washed twice in common water, and is then introduced into a glass or earthen vessel, large enough to allow of about half a gallon of water to every ten leeches. This is to be filled with water at from 50° to 68°, covered with canvas, and kept in the shade, at a moderate temperature, and not exposed to sudden changes of this. Every morning the water is to be changed, and the dead leeches cast out. From the fourth to the fifth day, the leech may be re-applied, and will draw as much blood as at first. The disgorgement is more easy and effectual, and less injurious to the animal the sooner it is put into force. The essential point is to discharge the blood as completely as possible, so that the leech ought not to weigh sensibly more after the process than it did prior to sucking. When the leech has not been reapplied during the four or five days after its disgorgement, it is more liable to die during the next two or three months than are leeches unapplied, kept under the same conditions. Some leeches die after the first four days, and some immediately after sucking; but the losses are less in proportion as the disgorgement has been made early. A second disgorgement is as easily effected as the first, and frequently more so. A third application, to be followed by the same process, may be attempted; but such re-applications must be suspended when less blood is found to be swallowed, and the suction seems insufficient, which will generally be the case after the second re-application. The leech should then be left at rest in a shady place, protected from atmospheric vicissitudes, the vessel containing ten or fifteen leeches for every half-gallon of water, which must be changed every second or third day, removing each time the dead leeches. In this way a proportion will be saved, which may be usefully re-applied after six weeks or two months.—*Revue Médicale.* 1856. T. I. p. 371.

STATISTICS OF OPERATIVE MIDWIFERY.

By Dr. RICKER.

This interesting contribution is derived from midwifery practice in the Grand Duchy of Nassau. This contains 429,341 inhabitants, and there are 100 civil practitioners, besides 20 others who practise while holding military or other appointments. These practitioners are required to make half-yearly returns, stating the characters of prevalent disease, the most remarkable of the surgical cases, and all the midwifery cases. The author has had access to the midwifery returns, and furnishes here an account of the results of his examination, as far as operative midwifery is concerned. Between 1821 and 1842 inclusive, i.e. 22 years, 304,150 births were recorded.

1. *Forceps.*—These were employed in 4223 cases, or about 1 in 72 cases. As, however, the earlier returns were somewhat incomplete, Dr. Ricker believes that 1 in 70 would be nearer the mark. The results were that 93 of the mothers died either during or soon after the operation, and that 684 children were born dead; being 1 death in 45 of the mothers, and 1 in 6 of the children. The indications for the employment of the forceps are noted in 708 of the cases only; viz:

Disproportion of size in the head and pelvis	287
Absence or feebleness of pains	269
Weakness or exhaustion of patient	33
Prolapsus of funis	29
Spasmodic or violent pains	22
Face presentation	20
Convulsions	12
Descent of parts with head	8
Placenta prævia	3
Faulty presentation of head	7
Rigidity	4
Tumefaction of pudenda	4
Erysipelas pudendi	7
Putrescency	1

2. *Turning.*—There were 10 cases of cephalic version, and 2473 of turning by the foot, or 1 in 123. The results were 176 deaths on the part of the mother, or 1 in 14, while 1431 children were born dead, or died soon after—or nearly 1 in 2. The indication for turning is recorded in 530 cases:—viz:—

Transverse presentation	388
Placenta prævia	82
Prolapse of funis	28
Narrow pelvis	18
Hæmorrhage	5
Other dangerous affections	4
Face presentation	2
Faulty presentation of head	2
Convulsions	1

3. *Perforation* was resorted to in 143 instances, or 1 in 2126. There were recorded 88 recoveries and 35 deaths, while in 20 cases no results are given.

4. *Dismemberment* was effected in 22 cases, 16 mothers recovering, and 6 dying.

5. *Cæsarean Section.*—Between 1821 and 1843, with 311,409 births, this operation was performed 12 times, 2 mothers and 7 children being saved. This gives about one cæsarean operation in 26,000 births. The operation was performed 33 times after the death of the mother, but none of the children were saved.

The author compares these results with the statistical accounts of the authors; but these being well-known we have not quoted them. *Monatsschrift für Geburtsk:* Band vi., pp. 81—101.

EXCERPTA MINORA.

Induction of Premature Labour by Carbonic Acid.—Professor Scanzoni, not satisfied with the means already in use, has contrived an apparatus for disengaging carbonic acid in the vagina. He was led to this by Brown-Séquard's experiments having shown the stimulant effect of carbonic acid gas on muscular fibre, and by the fact that prolonged contact of this substance with the genital organs induces congestion in them, and may relieve amenorrhœa. In the only case in which he has yet tried it (between the 32nd and 34th week of pregnancy) the gas was liberated during 20 minutes on the 2nd of February; for from 25 to 30 minutes morning and evening on the 3rd, and again on the 4th. A prickling sensation was now induced on the vagina, and dilatation of the os uteri commenced; and another application on the 5th had the effect of inducing true labour pains, which terminated in the birth of a small living child.—*Wien. Medic. Wochensch.* No. XI.

Dyspeptic Vertigo.—M. Trousseau observes that this condition, usually dependent upon some excess at table, on the part of persons whose digestion is disordered, often excites great alarm, but is easily relieved. He has found a formula of M. Bretonneau's of great service:—Bicarbon. soda, 8 to 10 grains, carbon. magnes. 4 to 5. One three times a-day, not near mealtimes; taking also a cup of infusion of quassia for ten or twelve days.—*Gaz. des Hôp.* No. XLVIII.

Diminished Frequency of Croup.—Dr. Küttner, Physician to the Children's Hospital at Dresden, observes, that while Gölis, at the commencement of the century, met with 1663 cases within five years, and other Practitioners regarded it as the most frequent of children's diseases, the number of cases seems, during the last thirty years, to have undergone great diminution. In the Dresden Hospital, among 13,120 patients during twenty years, only 33 cases (21 boys and 12 girls) have occurred, *i.e.*, 1 in 400, although inflammatory diseases of the respiratory organs are of common occurrence among the Dresden population.—*Jour. für Kinderk.* B. XXV. p. 16.

GENERAL CORRESPONDENCE.

THE METHOD OF DETECTING THE SQUINTING EYE.

[To the Editor of the Medical Times and Gazette.]

Sir,—My attention has recently been drawn to a quotation from my writings, in a paper by Mr. Holthouse on "The Condition of Vision the Best Test of the Squinting Eye," published in the *Medical Times and Gazette*, for June 28th, 1856.

I shall be obliged if you will allow me to make a remark on his comments thereon, also to add a fact that I have recently observed in the deformity of squint, and which is pertinent to the subject. The passage quoted is this:—"It is not an easy matter to determine which is the defective eye, and the sound eye is sometimes operated on. When this cannot be readily ascertained, I place the patient in front of me, at the distance of two or three yards, and direct him to cover one eye, say the left, and look at me with the other, keeping the head straight: the right eye will be in the centre of the orbit. I then direct him to uncover the left. Now, if the right, which has not been closed, is normal, it will keep its central position, while the left is turned inwards; but if it be deformed it will turn in, while the left will become straight. The experiment should be reversed."—Page 279.

After citing other passages from some excellent writers, and I may mention one of them, as Dr. Mackenzie, he says that the visual power is the only test that can be depended on, that he has had abundant opportunities of testing its value, as well as proving the inutility of all others. This declaration is rather rash, and that it does not possess the value claimed for it, I purpose to show. When Mr. Holthouse has a little more experience added to his "abundant opportunities," he will find, that with squint there may be equal vision in the eyes, and that he must resort to some other method for discovering the faulty organ, a condition that I long recognized, and to which I make allusion in my work, directly after the paragraph he has selected. I say: "When there is neither visual defect, nor inability freely to turn the eye out at will, the squint will appear, during examination, to shift from the one eye to the other, and remain in either so definitely, that it requires a long acquaintance with such cases not to be convinced that both are equally affected. But it is not impossible to discover that one eye differs from the other in its movements, having a greater tendency to remain adducted, if the experiments which are made be sufficiently varied, carefully conducted, and often repeated."—Page 280.

I beg to observe in parenthesis, that the eye should be merely covered with the hand, not pressed, because pressure on the eye-ball, although slight, may dim the vision and cause a mistake to be made.

Mr. Holthouse continues, "Shortly before my return from the East, I was requested by Dr. M'Craith, of Smyrna, to operate on a young Greek lady who squinted very decidedly, though with which eye it was difficult to determine, as it continually shifted from one to the other; it seemed, however, to have a preference for the left. Walton's test failed completely; but vision was most perfect in the left; that is, in the eye apparently most affected; it was not bad in either, the patient being able to read with both, though a smaller type with the left than the right. Notwithstanding the right eye seemed to be the straight one, I operated on it rather than on the other, owing to its less perfect vision."

This seems to be given as an exemplification of the test.

I was consulted by a gentleman 32 years old, who desired, if I should see fit, to be operated on for squint. There was a little difficulty, while merely looking at him, in telling which was the squinting eye, but I thought the left to be the one affected: and when I asked, as I always do, and as I have been in the habit of asking for years, with which do you see the better, because the defective eye is generally that which squints, and was told with the left. I proceeded to examine the eyes with care, and came to the conclusion that the left only was inverted. My colleague, Mr. Taylor, examined the case, and came to the same conclusion. Like myself, too, he found that with the left eye there was a greater focal range, and better sight. With his assistance, I operated, and a more satisfactory result was never witnessed by either of us. It is evident, therefore, that had I allowed the state of vision to be my guide, and discarded my usual test, I should have maltreated my patient. I am, &c., H. Haynes Walton.

69, Brook-street, Hanover-square, October 1, 1856.

"A NEW FORM OF RETRACTOR FOR USE IN EXCISIONS OF JOINTS, Etc."

[To the Editor of the Medical Times and Gazette.]

Sir,—A letter, signed "The Describer of a New Form of Retractor, for use in the Excision of Joints," in your last Number, requires some reply from me.

That gentleman, after alluding to mine in your Number for September 20, in which I said, that "this new instrument has been supplied by me to Guy's and St. Thomas's Hospitals six years ago," goes on to say: "I at once called on Mr. Bigg, and requested to be shown the instrument. The one which he produced was a simple bent director, without a handle, etc. etc." I must confess that, although aware that my former letter would be answered, I was not prepared for such an assertion as this, as the instrument I produced had a handle three inches and a-half long, and nearly an inch wide; and, with the exception of it (the handle) not being bent at an angle, nor made of ebony, this "simple, straight director" is identical with the *new* retractor, as figured in the woodcut in your Number for September 13; and I presume, if Mr. Spencer Wells was appealed to, he would say that the instrument he used in 1845 was straight, as far as the handle was concerned.

There is another portion to which I wish to allude, it is "an assertion in the same letter that Butcher's saw has superseded all directors of this class is so absurd as not to need notice. Butcher's saw requires, in order to work free of the soft parts when used to cut from above downwards, just as much protection of the latter as when the common saw is used. When made to cut upwards, it requires yet more by the depth of its own blade. To give this protection is the sole intention of the instrument referred to." If the saw is used to cut from above downwards, I agree with the writer of the letter alluded to, that such an instrument is required; but, if used as Mr. Butcher intended (see *Dublin Quarterly Journal* for February, 1855, pp. 24 and 57), from below upwards, it is wholly unnecessary, as the blade is but two-tenths of an inch deep, which is one of the improvements I lay claim to, the blade of the original saw being three lines deep.

Now, whether the absurdity lies in using this saw without a director, or in adding to its depth by placing one under it, I leave to the judgment of your professional readers.

I am, &c. Henry Bigg.

REPORTS OF SOCIETIES.

CRIMEAN MEDICAL AND SURGICAL SOCIETY.

May 1, 1856.

Dr. Williams, Vice-President, in the Chair.

The proceedings of the last meeting having been read, Dr. Williams apologized for the absence of both secretaries, one being on his way to Canada with his regiment, and the other, Mr. Wyatt, in the interior of the Crimea on duty. In the absence of the latter, Mr. Jessop had undertaken the duties of Secretary, and he hoped Dr. M'Leod would not disappoint the Society by withholding his paper on account of the smallness of the meeting.

Dr. Blenkins considered that, as Dr. M'Leod had come prepared to read a paper, he hoped he would prosecute his determination, as he was convinced he would have an attentive audience, though perhaps to-day a small one; and he (Dr. Blenkins) did not think they were competent to deprive the author of the opportunity of reading his paper because several members of the Society had not attended, for they must have known that the present subject had been announced for discussion to-day

Dr. Sall was of the same opinion.

Dr. M'Leod then read the following paper,

ON THE GENERAL USE OF CHLOROFORM.

The Author began by remarking on the necessity which existed for all Surgeons clearly making up their minds on this important subject, and thoroughly studying the question in all its bearings. He proposed to run rapidly over the different points of practical moment presented by a consideration of anæsthesia; and to submit the question as clearly as possible before the Society, with the view of eliciting from its members an expression of their opinions on the subject. Dr. M'Leod referred at the outset to the experiments of Mr. Nunneley and Dr. Simpson, instituted for the purpose of determining the relative value of different anæsthetics, and stated his intention of confining his observations in what followed to chloroform, as being the only anæsthetic of practical value. He then reviewed the different hypotheses which had been started to explain the physiological action of anæsthetics when inhaled, and gave his adhesion to that view which ascribed it to absorption into the blood, and its being thereby carried to the various centres. The fact that both chloroform and ether can be detected in the flesh and blood for a considerable period after they have been inhaled, the author thought went a considerable way to support that view. Dr. M'Leod then dwelt on the mode in which anæsthetics, when inhaled, might cause death. He observed, that in those cases which had ended fatally, as well as in experiments conducted on animals to determine the question, the most constant appearances were, (1), a highly congested state of the pulmonary tissues; (2) an engorged state of the right side of the heart, and an empty state of the left, in other cases a flaccid condition of the whole organ; (3) a congested state of the brain. These, with an altered condition of the blood itself, seemed to be fairly attributable or referrible to the drug. Death then had been ascribed to (1) asphyxia, caused, according to some, by the arrest of the chemical changes carried on in the lungs, and according to others, by the capillary vessels of the lungs; (2) to coma, caused by the action of the vapour on the nervous centres; and (3) to syncope, caused either through the nervous centres, or from the local action of the overcharged blood on the heart itself. From a careful consideration of the fatal cases, death, the author thought, was sometimes due to one of these modes and sometimes to another, and at times to two or more of them combined. He showed that all arose from the employment of the vapour too little diluted with atmospheric air, and were to be avoided by carefully guarding against such an error in the administration. Dr. M'Leod next alluded to the fallacy of allowing theoretical notions as to what parts of the nervous system are at any particular period of the administration being implicated, or as to how many drops are necessary to produce such and such effects, to interfere in the practical employment of anæsthetics. Such attempts only withdrew the mind from the real points of importance, and led to erroneous practice. He contended that all apparatus was not only uncalled for but absolutely injurious, as tending to frighten the patient, and prevent the escape of the expired breath. He said it mattered not whether we measure the amount of the liquid the patient has inhaled or not, so long as we are guided by effects. The propriety of keeping the patient from food for some hours previous to the administration of the anæsthetic, the necessity for quiet during the administration, and of allowing a free circulation of pure air around the patient were dwelt upon, and great weight was put on the recumbent position being assumed in all cases during the exhibition. The removal of all constrictions of dress about the neck and chest was insisted on, as well as the necessity of observing the temperature of the apartment, as Dr. Snow had shown how great a difference existed in the amount of vapour set free at different elevations of temperature. The advantage of bringing the patient rapidly under the influence of the drug, while a larger amount of atmospheric air was at the same time admitted, was pointed out; and the author proceeded to show that the discrepancy of opinion as to the "upholding effects" of chloroform arose from the degree of action established. That, if not carried beyond a certain point, the effect was certainly of a supporting character, and that the depression spoken of by observers was the result of a larger amount of vapour being administered than was justifiable. The respiration was shown to be the great guide in the administration of chloroform. The eye, too, being upturned and fixed afforded no information as to the establishment of the action, but neither the pulse nor the pupil communicated anything. The propriety of observing the colour of the lips and countenance, and also the flow of the blood from the cut vessels, was declared to be of consequence, as affording indications of the approach of syncope. The author stated his conviction that age, sex, diathesis, and idiosyncrasy were matters of indifference in administering chloroform, if we were guided by effects. Having referred to the combined use of chloroform and ether, the author went on to speak of the proper steps to be taken in the event of an overdose. As the chief danger was seen to arise from the use of the vapour in a state of too great density, or from its accumulation in the system, the great remedy was shown to be the free admission of pure air, and the employment of artificial respiration, if the patient was too deeply affected to work off the overcharge by his own exertions. The wonderful manner in which the respiratory movements may be excited by galvanism was then referred to. The method of raising the epiglottis by the finger, or by drawing forward the tongue, as recommended by M. Regnault, was strongly advocated, and the assistance obtained in producing the desired result by dashing cold water on the face and chest noticed. If the danger arose from syncope, the propriety of applying stimulants to the nostrils, and using them by the rectum, or the direct stimulation of the heart by needles, or the actual cautery, were pointed out. The method of inverting the patient recommended by M. Nelaton in such cases was also detailed. No fluids should be given by the mouth for some time till the patient had become conscious. The author summed up this part of the subject by recommending in all cases the admission of a stream of fresh air, the drawing forward the tongue, and the application of cold water to the face and chest. If death appeared to approach by syncope, stimulate the heart in one of the ways mentioned, and depress the upper part of the body; if by coma or asphyxia, use artificial respiration produced by the hands or electricity. The use of anæsthesia in the practice of Medicine was then shortly reviewed, and shown to be chiefly attended with benefit in relieving pain, however arising. Its employment in many diseases, implying lesion of sensation and motion, was dwelt on, together with its use in cases of mental affections. In the paroxysms of many spasmodic and neuralgic affections it was shown to be invaluable. Surgery, however, was declared to be the real province of anæsthesia, and that in which its benefits were more gratefully recognized. The advantages accruing to both the Surgeons and patients were pointed out, and the cases in which it was employed were stated to be reducible to those in which pain or spasm was to be allayed. Dr. M'Leod emphatically denied that there was anything in gunshot wounds which made the use of anæsthesia in these less beneficial than in the same accidents of civil life; and he contended that, as the pain and suffering in these cases were very great, so much the more necessity existed for its use. He stated his conviction that the mental state of the patients who were the recipients of these two species of injuries made no real difference in this question. Shock and pain were the most fruitful causes of a fatal issue both in primary and secondary operations; and, as these two evils were avoided by the employment of anæsthesia, we would naturally expect to find that the mortality succeeding capital operations had decreased since the use of anæsthesia had become general, and this the author would presently show was the fact. In the examination, adjustment, and dressing of injuries, in the employment of instruments to cure diseases, in the reduction of hernia and dislocations; and, in short, in all those instances in which the Surgeon's interference caused pain, or in which it was desirable to prevent any muscular opposition on the part of the patient, the use of anæsthesia was shown to be invaluable. Its use in tetanus during the war was spoken of, and the fact stated that in one well-marked case, at least, its continued use had been followed by recovery. Dr. M'Leod thought that in the General Hospital its use had been, beyond all question, successful; and he did not agree with Mr. Mouat, who had read a paper on the subject at a former meeting, that in the cases there or elsewhere it could be fairly said to have produced any disagreeable consequences. The very few cases in which it had been said to have given rise to unpleasant or fatal effects, contrasted strongly with the multitude, in which it had been successful, in which it had

obviated pain, and saved life. The writer next glanced at the various objections which had at various times been made to the use of anæsthesia, and showed how false both theory and practice had proved them to be. He also alluded to the many operations which were now practicable and beneficial; which, before the discovery of anæsthesia, were unattainable. To military Surgeons the detection of feigned disease was now a matter of simplicity, and many of the questions which divided them in opinion were now much changed in their bearings. All objections to primary amputations were now set aside, and the doctrine of "making the knife follow the ball" had received a new and important support. The writer expressed his strong conviction that shock was not established till some time (the duration being different in different injuries and persons) after the receipt of an injury, as by a ball, and he said he felt sanguine that an operation under chloroform performed in this interval would obviate much of the succeeding shock, by removing its cause. He was sorry that during the past siege, which was so manifestly favourable for testing this, so few attempts had been made to carry it out. In conclusion, the Author having stated his opinion that no case absolutely forbids the use of chloroform, referred to those in which its administration should be carefully watched. Operations on the back of the mouth, from the danger of blood getting into the throat, cases of severe hæmorrhage, long continued suppuration, acute disease of the lungs, diseases of the heart, particularly dilatation with weakening of the organ, on account of the fear of fatal syncope, aneurismal disease of the aorta, in marked apoplectic diathesis, and cases in which fatty degeneration may be suspected. These seemed to comprise all those cases in which extra caution was necessary. That care should be taken that the agent employed should be pure, was insisted on, and the tests to determine the presence of adulterations were stated.

Dr. M'Leod next gave the statistics recorded by Mr. Skey, Drs. Simpson and Snow, and MM. Velpeau and Bouisson, as affording a large amount of evidence in favour of chloroform in surgery, as not only proving its beneficial influence in relieving pain, but in directly saving human life; and he stated that while during the past war it had been administered in innumerable instances, only one death had followed its use, and in that case the patient was not placed in the recumbent position. While expressing his own belief that if administered with proper caution chloroform may with perfect safety be employed in all those cases which fell to the care of the military Surgeons, in which it is desirable to overcome pain or spasm, or muscular exertion, the Author called on the members of the Society to give a clear and decided verdict on this important subject, founded on the experience of this great war, which would for ever put this question at rest, and remove all doubts as to their appreciation of the immense benefits bestowed on humanity by anæsthetics.

Dr. Blenkins understood the Author to say that only one fatal case had taken place, whereas he believed more had occurred. He felt very much obliged to Dr. M'Leod for a highly interesting paper, and considered that the author had gone most fully into his subject. He (Dr. Blenkins) trusted that each individual would give his experience of the use of chloroform, without any view to opposition, but for the benefit of all. In his practice chloroform had been just as successful in the Crimea in severe operations as at home; and he quite agreed with the author, that there is no difference in the effects of accidents in civil and military life, and had not seen any ill effects in any of his cases. He did not regard chloroform as a drug to be treated with carelessness and indifference, but with great care, and should watch the pulse and respiration. He should not object to use it in easy operations, even the amputation of a finger, and had founded his opinion on the result of many operations, and had never seen a fatal result. He remembered one case, that of an old soldier, where the patient was a very long time before he perfectly recovered, but this was owing to the length of time it took to get him under the influence of the drug; and this, again, was accounted for by his addiction to strong drinks. The theory of its action would occupy too much time for him to enter upon now. He expressed his conviction that chloroform acts through the blood, and looked at it as a remedy requiring vigilance in its use. He had operated fifteen times under its influence, besides having given it in tetanus, fits, etc. He believed it to act as a stimulus, and to raise the pulse when low. On one occasion he was obliged to remove the head of the femur at night, with only one assistant, and he believed it almost impossible to have done so without the use of chloroform. In conclusion, he begged to state that all his observations agreed with those of the author.

Dr. Gall considered that the Society was much indebted to Dr. M'Leod, for the very valuable and lucid paper which he had just read: and stated that he had used it with the most marked success in cases of delirium tremens, and had found it a more beneficial mode of treatment than the stimulo-narcotic plan. He then alluded to the case of a youth, in the band of the 93rd Regiment, who after suffering much distress of mind from disappointment, relapsed into a state resembling hysteria, accompanied with a complete cataleptic condition, in which he remained for twelve hours: in this case a variety of stimulating plans were tried without success, but under the anæsthetic use of chloroform, the boy quite recovered. He considered that in the administration of chloroform, there were two things necessary to be borne in mind: the purity of the drug, and the correct mode of administering it. He (Dr. Gall) had never witnessed an unfortunate result from its use.

Dr. Bowen had never heard a more practical paper, and he agreed entirely with the views of the author. He had seen anæsthetic agents used for the last six years, and had given it himself between 2000 and 3000 times. He considered that the best mode of administering it was by means of a napkin, as stated by Dr. M'Leod. As regarded the purity of the drug, he was only surprised that more accidents had not happened from its frequent impurity. He had detected both free chlorine and muriatic acid in different samples furnished twelve months since to the Military Hospital at Plymouth. It had been given by himself for 14 hours to one woman; and Professor Simpson, in a case of convulsions in an infant had given one hundred ounces within a period of two weeks with most beneficial results. He had been informed by the Russians, that, throughout the siege, chloroform had been used with only one or two fatal results, which was not surprising under the circumstances. It appeared that their mode of administering it was the same as that now recommended.

Mr. Howard considered that in delirium tremens it was invaluable, and by its means he had procured sleep, when opium could no longer be given with safety, and after every other means had absolutely failed.

Dr. M'Leod replied to one or two observations.

Dr. Williams stated that he regretted Dr. Mouat's absence. At a former meeting, he was precluded from speaking of the use of chloroform in application to gunshot wounds; but few persons had seen it more extensively used than himself in the colonies. He had derived much pleasure from Dr. M'Leod's paper, and had felt much disturbed at Dr. Mouat's previous statements, as to the possibility of the effects, such as he described, being produced by chloroform in gunshot wounds. He would like to inquire whether all the hardships which the men had undergone might not have influenced the result.

Dr. Gall proposed, and Dr. Bowen seconded, a vote of thanks to Dr. M'Leod for his paper; when the meeting adjourned till the following week.

May 8, 1856.

Sir John Hall, M.D., K.C.B., in the Chair.

The Society met for the purpose of enabling members generally to express their further opinions on the use of chloroform, and also to adjourn the meetings of the Society in the Crimea; which was formally proposed as a motion by Dr. Williams, and seconded by Dr. Blenkins.

It was also proposed that the following notice should be inserted in the Medical Periodicals by the Society:—

"That in adjourning the ordinary weekly meetings in the Crimea, members proceeding with the Army to other stations be requested to avail themselves of the provisions of Rule 12, of the Society's Bye-Laws."

NORWICH PATHOLOGICAL SOCIETY.

Donald Dalrymple, Esq., President, in the Chair.

Dr. Dove (Norwich) exhibited the lung of a man who died of pneumothorax. The patient was 28 years of age, and the subject of chronic phthisis, though in tolerable health at the time of the fatal attack. He was seized suddenly, soon after

a meal, with extreme dyspnœa and anxiety, quick pulse, and cold perspirations. He died twelve hours afterwards. The right lung was found collapsed, with a small opening situated anteriorly at the apex, communicating with a tubercular cavity. The reporter noticed the following peculiarities:—

1. The occurrence of the attack during good health after a hearty meal, without cough or respiratory effort.
2. The entire absence of adhesions and of acute pain.
3. The total absence of effusion into the pleura.
4. That it occurred on the right side.

Mr. Adams (Bungay) exhibited a tumour having the appearance of a cystic sarcoma, and as large as a man's fist, which he had dissected from the anterior part of the thigh of a woman, aged 23. The tumour had existed several years, and was in close contiguity to the femoral artery. The patient recovered. Mr. Adams also exhibited a fibrous tumour, about the size of a goose's egg, removed, by operation, from the popliteal space. The patient recovered.

Dr. Copeman (Norwich) produced a specimen of abdominal aneurism. A man, aged 39, was admitted into the Norfolk and Norwich Hospital on the 21st June, 1856, for what was supposed to be either sciatica or chronic disease about the hip. His appearance was that of a man much reduced and worn by suffering; and, from the period of his admission to the day of his death, July 9, he suffered intolerable agony. He was scarcely ever able to take food without vomiting; his paroxysms of pain were most severe, but no swelling or pain could be detected in the neighbourhood of the hip or groin, where the pain was most acutely felt. On the morning of his death he passed a copious motion, and fainted, apparently from the exertion, but the collapse continued until his death, a few hours afterwards, and a swelling appeared in the abdomen, just above Poupart's ligament.

It was afterwards found, that the cause of his death was the bursting of a large aneurism into the groin, originating from the posterior aspect of the aorta, opposite the giving off of the cœliac axis, making its way downwards in the direction of the psoas muscle behind the left kidney and renal capsules, as far almost as Poupart's ligament, where it burst into the cellular tissue external to the peritoneal cavity. It might be said that during his sojourn in the hospital the only prominent symptom was pain, and that was of a most intolerable character, such as probably scarcely any other disease but aneurism would have produced.

OPENING OF THE SESSION.

DISTRIBUTION OF PRIZES AT QUEEN'S COLLEGE, BIRMINGHAM.

The distribution of the honorary præmia to the meritorious students of Queen's College, took place on Wednesday last.

Frederick I. Welsh, Esq., in the first instance occupied the chair, and announced to the meeting that John K. Booth, Esq., M.D., had been unanimously elected Principal of the College. He observed that from the long services of Dr. Booth to the town as an accomplished Physician of the General Hospital, as an active Governor of the Grammar School, as a respected county Magistrate, and as an early benefactor of the College, his appointment could not be but highly gratifying to the Honorary Governors, Governors, Fellows, and friends of the Institution, and to the members of the Medical Profession, to whom the College owed its present high position and success. (Applause.)

Dr. Booth then took the chair amidst loud cheers, and was supported by the Father of the Profession, Edward T. Cox, Esq.; by the leading members of the Council; by the Treasurer and Dean of the Faculty; by Professors Dr. Birt Davies, Heslop, and Jordan; by Professors the Revds. Parry, Gibsone, and Espiri; by Professors Knowles, Bolton, Pemberton, Berry, Rofe, and Marshall; by Drs. Banks, Warden, Suckling, Hinds, and Dunn; and by Messrs. Langston Parker, Solomon, Bracey, Hoskins, Macpherson, and other members of the Profession; by members of the Town Council, and by Guardians of the Poor.

The Principal then handed the prizes to the successful students, accompanying the presentation with feeling and appropriate remarks. The medal given by the Society for the best essay on a subject in Medical Science was awarded to Mr. James Neal for his essay on "Pathology and treatment of Aneurism;" and the Medal in General Literature to Mr. John Meaburn Bright, for his essay on "The Life and Writings of Addison."

Professor Bolton then read his address, the object of which was to impress upon the minds of the Students the paramount importance, in the study of disease, of making themselves acquainted with the anatomy and functions of the human body. The learned Professor then spoke of morbid anatomy and pathology, and gave much good advice as to watching the progress of disease, tracing it through its various forms during life, and noticing the altered condition of organs after death. The importance of a knowledge of the facts and principles of chemistry was next laid down. The proceedings of the day encouraged the hope that the Students had a just appreciation of the value and bearings of the collateral sciences in promoting the principal objects of their education. After reference to the fact that one of their most assiduous and exemplary Students, Mr. Williams, had been awarded the honorary gold medal of the University of London for his high attainments in anatomy and physiology —thus showing that in the provinces they possessed all the advantages of Medical education, Professor Bolton concluded with an eloquent exhortation as to their steadily cultivating the intellectual powers and a healthy state of the moral feelings.—During the delivery of his address Mr. Bolton was repeatedly applauded, and at its conclusion a vote of thanks was carried by acclamation.

Dr. B. Davis proposed that the thanks of the meeting should be given to Dr. Booth. Those who had known him before that day expected nothing but that he would carry himself through his duties as he had done in his capacity as a county magistrate, and every other office he had filled. (Loud cheers.)

E. T. Cox, Esq., seconded the motion, and said he had never in his life felt greater pleasure than in so doing.

The vote of thanks was carried amid applause, and Dr. Booth having briefly returned thanks, the meeting separated.

ANNUAL DINNER OF THE STUDENTS OF QUEEN'S COLLEGE.

The Annual Dinner of the Students of Queen's College, and to which the Professors and Tutors are invited as guests, was held, as usual, at the Union Inn, Union-street, on Thursday evening. There was a larger number present than on any former occasion. The chair was occupied by Mr. Josephus A. Williams, the Student who has gained most distinction during the year, having carried off the gold medal of the London University—an honour but rarely achieved by men from the provinces.

The Chairman, after the usual toasts, gave "Prosperity to the Queen's College." He remarked that that Institution, like others, had had times of prosperity and seasons of adversity, but he believed it had never yet failed to scatter its benefits abroad, and make its influence felt from the Pole to the Equator. (Hear.) As long as it was supported by men whose heart was in their work, they might safely predict of the College that what it had yet been was but the vigorous youth of a still more vigorous manhood. (Cheers.) Its distinguished founder, and the founder of the Queen's Hospital, was their guest that evening. (Great applause.) All of them knew his labours, his sacrifices, and his universal philanthropy. All had experienced his kindness, for wherever the students were ready to learn, he was ready to teach. (Hear.) When they were in their cradles, Mr. Sands Cox was toiling at his favourite object, a scheme which had for its aim the benefit of his fellow-townsmen, and the relief of suffering humanity. Two noble institutions attested the value of his labours, and would be ever associated with his name; and he (the Chairman) could not utter a better wish than that they might emulate his zeal, and follow humbly and at a distance in his footsteps. (Hear, hear.) He would give them, "Floreat Collegium Reginæ, Birminghamiensis," and would couple with it the name of the Professor of Anatomy, Mr. Bolton.—The toast was drunk very warmly.

Mr. Bolton, in acknowledging the compliment, remarked that as long as they ranked among the students such men as Bond, Williams, Neale, and others, who had distinguished themselves at the College and elsewhere, he would not despair of its success, as they had in the names of those gentlemen the highest security and best guarantee for their future success and prosperity. (Cheers.) He hoped the proceedings

of the previous day would stimulate the students to increased exertion, and they would, doubtless, see, at no distant day, the students of Queen's College attain the highest honour and place in their Profession. (Hear.) He asked them to drink to the health of the prizemen of Queen's College, coupled with the name of Mr. Williams, who had this year obtained very distinguished honours, (Cheers.)

The Chairman briefly returned thanks.

Mr. Mould proposed the health of the Warden, Mr. Parry, who, he remarked, had given them all good cause to esteem him by the uniform kindness and courtesy he had shown to every student. (Cheers.)

Mr. Neale said he had been entrusted with a toast, which he felt sure would always meet with a warm reception at the meetings of students of Queen's College. It was the health of William Sands Cox, Professor of Surgery. (Enthusiastic applause.) Mr. Cox was so well known, that but few words were required to commend the toast to their acceptance. All who had attended his lectures must feel that his continual anxiety to make them as productive of good and as interesting as possible, made it incumbent on them to do all they could to prove creditable to him in after life. (Hear.) Of his interest in the College there could be no doubt. As long as the College and Hospital stood in Birmingham, there would be no need of words to ask a body of professors and students to drink the health of Mr. Cox, and without further remarks he asked those present to do so most heartily.—Most heartily was Mr. Neale's wish complied with.

Mr. Cox returned thanks. He said: In the first place I must thank my friend, Mr. Neale, for the very kind manner in which he has proposed my health, and I must also thank you for the very flattering manner in which it has been received. I am not going to read you a lecture, or to talk about clouds and other nonentities. I can only say that it always affords me the greatest pleasure to meet students of Queen's College, and as long as I have health and strength I trust you will find me at my post. (Cheers.) Gentlemen, I sincerely thank you, and wish you all health and happiness, and every success, in the honourable pursuit of your Profession. God bless you all. (Applause.)

Several other toasts, brought to a close a very pleasantly spent evening.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of Medicine, and received certificates to practise, on Thursday, October 2, 1856:—

Barker, William, Habton, Pickering, Yorkshire.
Bennett, Henry Philip, India.
Bloxam, Matthew, London.
Bubb, Horatio Warner, Sawbridgeworth, Herts.
Courtney, Sydney Charles, Leatherhead, Surrey.
Lade, George, King's Lynn, Norfolk.
Willan, Reginald Moore, Newton-on-Trent.

DEATHS.

Bacon.—Oct. 3, at St. Paul's-road, Camden-town, Samuel Bacon, Esq., Surgeon, late of Hampstead-road. M.R.C.S.E. 1827; L.S.A. 1826.

Boyd.—August 30, at Morpeth, Canada West, Mr. Thomas McGregor Boyd, Surgeon, late of Glasgow.

Edwards.—Aug. 18, on board H.M.S. "Espiegle," aged 31, at sea, off Cuba, George Henry Edwards, Esq., M.D., Acting-Surgeon of the ship, of severe intermittent fever.

Edwards, Samuel, M.D., St. Andrew's, 1843, of Upper George-street, died at Newport, Devon, September 30, aged 35. Before practising in London, Dr. Edwards was established at Bath, where he was Physician to the Dispensary and the Eye and Ear Infirmary. He had attained an excellent family practice by 1854, and was Physician-Accoucheur to the Samaritan Free Hospital for Women, when, on the death of the late Dr. Reid, of Brook-street, he was introduced to the patients of that esteemed Physician, and was succeeding in keeping the practice together, partly for the benefit of the family, when he was seized with illness, and at length fell a victim to phthisis. Dr. Edwards was an excellent Practitioner, kind and agreeable in his manners, and very much liked by his friends and patients. He was the author of various papers in the journals on uterine diseases, and on the use of phosphate of ammonia in gout and rheumatism. His last paper was in this Journal in 1855, on the use of iodine paint as an application to cutaneous nævi. We are sorry to add, that a very short time before his death he deposited the greater part of his professional savings, amounting to a considerable sum, in the Royal British Bank.

Hayes.—July 18, in Calcutta, of dysentery, John Boon Hayes, M.D., H.E.I.C.S., late of Bolton-street, Piccadilly. M.D. King's Coll. Aberd.; M.R.C.S. Eng. 1848; Lect. on Pract. Physiol. and Demonst. of Anat. Univ. Coll.; late Phys. Northern Disp. Lond. Contrib. twelve serial lectures on "Histology and Microscopical Manipulation," article on the "Pseudo-Sciences."

Russel.—Sept. 28, at George-street, Aberdeen, Thomas Russel, Esq., Surgeon H.E.I.C's Service, aged 46.

Siddall.—Oct. 2, aged 69, much respected, at No. 3, Albert-place, Long-walk, Windsor, John Siddall, Esq., Veterinary Surgeon of the Royal Horse Guards (Blue), after a service of 52 years in that regiment, of which he was the last remaining member present at Waterloo.

BEQUESTS.

Miss Sarah Edmunds, of Brighton, has bequeathed £100 each to the Brighton and Sussex Hospital, the Dispensary, the Salisbury Infirmary, and the Bath United Hospital.

University of Oxford.—The Rev. David Williams, D.C.L., Warden of New College, was on Wednesday elected Vice-Chancellor, in the room of the Rev. Dr. Cotton, whose term of office had expired.

The Hope Collection, Oxford.—Mr. Hope has just made several additions to his former valuable collection of books, prints from the old masters, engraved portraits, and specimens in zoology, presented by him to the University, for the Museum in course of erection.

Westminster Hospital School of Medicine.—The distribution of prizes for the past year to the Students of this School took place at a *conversazione* after the introductory address on Wednesday evening, October 1, presided over by the Rev. Mr. Cureton, Prebendary of the Abbey, and Rector of St. Margaret's. The following is a list of the gentlemen to whom the prizes and certificates of honour were awarded:—*Winter Session.—Chemistry.*—Silver medal: Mr. Eugene F. Cronin, London. *Anatomy.*—Silver medal: Mr. W. P. Harris, Clifton, Bristol. Certificate: Mr. Thomas A. Kennard, Lambourne, Berkshire. *Physiology.*—Silver medal: Mr. James Ford, Barnstaple, Devon. Certificates: Mr. Montague J. S. Perreau, London; Mr. Frederick Mac Cabe, London. *Medicine.*—Silver medal: Mr. W. P. Harris. Certificates: Mr. J. S. Perreau; Mr. J. Ford; Mr. William Curran, Brompton. *Surgery.*—Prize of books: Mr. William Curran. Certificates: Mr. Thomas A. Kennard; Mr. Hubert Beadles, Broadway, Worcestershire. *Summer Session.—Botany.*—Silver medal: Mr. Charles William Browne, Kew-green, Surrey. *Forensic Medicine.*—Silver medal: Mr. James Ford. *Materia Medica.*—Silver medal: Mr. George Green, Bishop's Castle, Shropshire. Certificate: Mr. C. W. Browne. *Midwifery.*—1st silver medal: Mr. Montague J. S. Perreau; 2nd silver medal: Mr. James Ford. Certificates: Mr. G. Green, Mr. C. W. Browne. *Practical Chemistry.*—Silver medal: Mr. James Ford. Certificates: Mr. J. S. Perreau, Mr. Hubert Beadles. *Practical Midwifery.*—Maternity Prize for Clinical Reports (a 5-guinea case of obstetric instruments): Mr. James Ford.

The Queen's University, Ireland.—On Wednesday there was a meeting of the Queen's University, in St. Patrick's Hall, Dublin Castle, for the purpose of conferring degrees. The Lord Lieutenant was present. There was a full attendance of the members of the senate. The Lord Chancellor in addressing the assembly said, he regretted that he was not able to announce any increase on the present occasion in the number of those who have sought degrees, as compared with former years. At the examinations which have just been concluded, the examiners have found that there are eighteen of the candidates qualified for admission to the degree of bachelor of arts, five to that of master, one to that of bachelor of laws, and two for the grant of our diploma of elementary

law. In the Medical faculty eight gentlemen have been reported to the senate as having duly passed the final examination for the degree of doctor of medicine, and seven have passed the first examination required by our ordinances on the part of students seeking that degree, and who will, I trust, be found among the successful candidates for it in a future year.

CRETINISM.—We have received the following remarks upon Crétinism, from a Physician who has lately visited the establishment for Crétins on the Abendberg. Crétinism, which has hitherto been so little studied, is so frequent in Europe that the most recent writer on the subject, Dr. Scoulteten, calculates the number at a million. Switzerland alone has 10,000, and Austria, which seems the most afflicted country in this respect, has in its different districts at least 100,000 cases. Although in England the disease is found sporadic in the large towns, originating ordinarily from scrofulous disorders or intermarriage, and endemic in the hilly districts of Somersetshire and Derbyshire; yet Crétinism is essentially a disease of the brain and nervous system, and is more curable than common idiocy, which depends on an original want of development of certain parts of the brain. The fundamental system of curing Crétinism is by strengthening the body, on which account the salutary influence of the mountain air is most important, which favours the nutrition of the body, improves the circulation of the blood, and promotes the activity of the nervous system. Comparative experiments with the Crétin children in the valleys have proved that various medicinal means, such as aromatic baths, cod-liver oil, ferruginous preparations, electricity, etc., have much less curative effect than on the mountains. The Abendberg Hospital is, therefore, particularly useful in the treatment of idiotic children, who are weak and diseased in body. The following are some of the cases in which treatment has proved successful. A boy of a weak, atrophic body, large head, and deformed palate, who could neither articulate nor understand, now reads and writes, after six years of treatment, the French and German languages, pronounces both distinctly and fluently, draws well, and performs gymnastic exercises with great facility. He is now able to leave the institution, and to become a cabinet-maker. Another boy, admitted at the age of 12, was rickety and very weak in his body, and so confused in his ideas, that he associated together the most different objects, as a rail-road and a cemetery, and at home could learn neither to read nor write; but, after some residence at the Abendberg, he has changed most remarkably in his physical appearance; and since his nervous power and his body have become stronger, his reasoning faculties have so much improved that he now answers questions perfectly well, and reads and writes fluently. An Italian boy, at the age of 10, was so wild and excited, that he destroyed his clothes every day, and bit his fingers until the blood ran out, is now entirely changed, has become kind and obedient, and has learned to read and write, and even to compose letters himself. A girl, admitted at the age of 8, could not articulate, nor did she know any of the common objects of life; her walk was very bad, her knees fell in, and she dragged her feet after her; her belly was swollen, the muscles atrophied, the skin cold, and hung over the flesh like a sack. The head was large, but regularly formed, and the ear was frequently the seat of scrofulous suppuration. The tonic method improved her health and appearance so much, that she could scarcely be recognised by her parents when they subsequently visited her. She learned to speak well enough to be understood, could read and write, and was clever in needlework, and a careful nurse; so that she was able to leave the institution, and to earn her own livelihood. It would appear that the unfortunate Crétins possess mental faculties like other persons, but that their intellectual development is prevented, in consequence of the diseased state of the brain, which may be cured in many instances. The improvement of these children is usually a sudden one, after a long period of expectation, and depends upon the general melioration of health, and also probably upon some particular cerebral development. Experience has constantly shown that, without appropriate treatment, the disease will increase from year to year; and it is, therefore, urgently necessary to pay attention to the commencement of this serious affliction, and not to wait until the malady is confirmed by advancing age. So far from improving with increasing years, it is found that in the Crétins a perfect degeneration takes place at a certain period of life.

THE following Memorial of the Members of the County and City of Cork Medical Protective Association, has been sent to Lord Palmerston, and its receipt has been acknowledged by his lordship:—"That Memorialists having had experience and watched the operation of the recent Medical Charities Act of Ireland, consider it very defective and unjust to the Medical Officers in some essential points:—1st. That there exists no security for permanence of office, a Medical Officer in charge being obliged (no matter how long his tenure) to undergo a new Election, and be subject to the opposition of other Candidates on the re-casting of Dispensary Districts, instances of which having already occurred, some of a very painful character. 2nd. That the Law in reference to Vaccination has proved a signal failure, and that the Order of the Poor-law Commissioners, obliging Dispensary Medical Officers to Vaccinate gratuitously, all Applicants without distinction, forms a just cause for complaint and dissatisfaction. 3rd. That the cancelling of Tickets for Medical Relief obtained by persons in comfortable circumstances is very imperfect, on the grounds, that spending the Meeting of the Dispensary Committee, which is only held fortnightly, a Medical Officer is bound by the Poor-law Commissioners' Rules, to attend to each case recommended, however independent the party may be, until the ticket be cancelled at a subsequent meeting of the Committee, an arrangement which experience proves unjust— not alone to the Medical Officer, but also to the Rate-payers. 4th. That in England the Salaries of Medical Officers being paid in half from the consolidated fund, Memorialists respectfully urge a similar claim upon your Lordship as a matter of justice to the Dispensary Medical Officers of Ireland, particularly since the latter country is subject to income tax. 5th. That no legal provision is made for extraordinary services, to which the Dispensary Physicians of Ireland are so liable, from the outbreak of alarming Epidemics, which so often occur in this country. 6th. That in no branch of the public service is a claim for Superannuation or Pension stronger than in that of the Dispensary Medical Officer, whose public duty is one of continued toil, responsibility and hazard. Your Memorialists most strenuously urge these premises on the consideration of your Lordship, and anxiously hope, that such alteration will be made in the Law early next Session of Parliament, as will lead to their speedy redress. The subjects to which this Memorial refers are so important, that we are glad to hear that a copy has been sent to all Members of the Profession holding Poor Law appointments in Ireland.

MR. J. H. HOPKINSON, the chemist and druggist, whose wife was brought up before Mr. Yardley last week for attempting to poison herself, died the same evening, from rupture of a blood-vessel. It will be recollected that he was, at the time of the examination at the police office, suffering under delirium tremens.

SALE OF POISON IN PRUSSIA.—The Minister for Medicinal Affairs has directed the police here and elsewhere to announce to apothecaries that they are forbidden, under large penalties, to serve customers twice with any remedies of a poisonous character ordered by Physicians—that is to say, they are required to refuse such delivery unless purchasers are furnished each time with a fresh recipe from a Physician.

CHOLERA continues to prevail to a very serious extent in the Punjaub. A letter from Meean-Meer of the 18th of August says—"The cholera has created a panic here. It first broke out in the European horse artillery, and after some time it was thought advisable to send them into camp, but that has not done them any good. Every day a number of them die off; and now the foot artillery have got it. The Queen's 81st Regiment has, I hear, lost five men, and the cases left are mild ones. The 26th light infantry has had a few cases; the 16th Grenadiers has hitherto escaped the scourge."

POISONING BY STRYCHNIA IN JAMAICA.—The obituary of the 30th Aug. of the *Morning Journal* announced the death of the wife of Colonel King, of the 36th Regiment, caused, as it was supposed, from an affection of the heart. It was, however, subsequently discovered (on the 1st inst.) that her death had been occasioned by strychnine, which poisonous drug had been administered in mistake for some other medicine. It appears that, among other medicines sent up to Newcastle from the Medical depot in Kingston, were two bottles containing respectively strychnine and bismuth. By mistake, how-

ever, both bottles were labelled "bismuth," and were sent for Newcastle under that nomenclature. Mrs. King happening to arrive there slightly ailing, the Medical Officer, Dr. Jopp, prescribed a powder containing five grains of bismuth. The hospital sergeant, Price, who made up the prescription, seeing two bottles labelled "bismuth," thought it useless to have two unfilled bottles of the same drug, and, unfortunately, poured out the contents of the bottle of strychnine, mislabelled "bismuth," into the bottle really containing the last-named drug. The unfortunate lady had scarcely taken the fatal dose when she was seized with the characteristic symptoms of tetanus, and in a few minutes she expired. At the inquest the jury found that Mrs. Mary Ann King came to her death by taking strychnine in error, through the want of due and proper caution on the part of Staff Assistant-Surgeon, Charles Benjamin Moses, and Surgeon James Jopp, 36th Regiment; and that the said Dr. Jopp and Dr. Moses are both guilty of involuntary manslaughter. But the majority of the jury are of opinion that Dr. Jopp is culpable in a minor degree. Both these gentlemen were then called upon to tender bail to appear and answer the charge of manslaughter at the ensuing Kingston District Court.

Sale of Poisons.—On this subject the *Glasgow Herald* says:—A few weeks since a mother applied at a druggist's in the outskirts of the city for a mixture of tincture of rhubarb and essence of peppermint for her sickly child. The shopboy served her. The drug was administered. That evening the child was dead; and a post-mortem examination established clearly that death had ensued from an overdose of laudanum. The poison had been given for the medicine. Similar instances are not unknown both in private life and public experience. From returns which have been recently collected by Captain Smart, it appears that the drug-shops in our city number 124, and that in these are employed 194 assistants. Of these 194 assistants, 32 are between the age of 12 and 15, and 60 between 15 and under their 20th year; 137 have never attended either a Materia Medica or other class where a knowledge of the principles of their Profession might be acquired; 59 do not even know Latin, with which druggists label their bottles and pots, and "beggarly account of empty boxes;" while 34 have had less than three years' practical experience among drugs, and 38 cannot boast of eighteen months. When we consider the aggregate sum of ignorance revealed by Captain Smart's returns, and the power for good or evil with which, to a great extent, it is entrusted, our wonder is, not that the awkward cases do occur, but that they are not much more frequent.

The Yellow Fever is at Charlestown, U,S., 26 deaths having occurred.

Health of St. Marylebone.—The following is from the report of Dr. Thomson, Medical Officer of Health for the parish:—"The Mortality Table for the month of August, which enumerates 306 deaths against 307 in July, exhibits a great fatality (60) from Infantile Diarrhœa, a disease which in June destroyed only two children. The number of cases of this disease which have occurred throughout the district, judging from the result of the experience of the Parish Surgeons, must have been great, since 305 cases, including a sprinkling of older subjects, were recorded during the month as having fallen under their cognizance in their official capacity among the poor. One predisposing cause of this disease depends on irregularity of dieting, from the use of excess of fruit and vegetables. Consumption has been less fatal (32) than in July (48); and the same remark applies to Typhus Fever (11), as compared with the preceding month (18). Happily, as observed in the last Report, no death has occurred from Small-Pox. Hooping Cough (4) has cut off fewer children than it did in the two preceding months, the mortality from that disease in these periods being respectively 14 and 11. I think it proper to advise that for domestic use, particularly in the case of children, at this season, the water supplied from the Thames by the Water Companies should be boiled and allowed to cool in porous earthenware vessels. Although the taste may be somewhat less agreeable than when the water is used in its natural state, there can be no question that from a variety of considerations connected with the origin of the supply, the application of a boiling temperature to such water, by destroying the vitality of vegetable and animal germs, is a sound example of preventive medicine. The fatality of various situations, in reference to infantile diseases, such as Scarlet Fever, has shown the influence of malaria, derived from the saturation of the earth surrounding many habitations with organic matter, and has induced me to inquire into the amount of stuff capable of decomposition which even soaks into the earth under the pavement of the streets. In Crawford Street, for example, I found that at two feet of depth every hundred pounds of the gravelly clay contained upwards 3½ pounds of vegetable and animal matter in a state of decomposition, and capable of emitting noxious exhalations; at a depth of four feet the per centage was 2·8 pounds of decomposing matter; at six feet it was 2¾ pounds; and at 8 feet it amounted to 2¾ pounds of organic matter in every hundred of earth; at ten feet it was 1·92 pounds, and at 12 feet a stratum of sand contained ·74 pound per cent."

Mortality Notabilia.—The return of deaths for last week is a not unfavourable indication of the present state of health in London. The total number of deaths registered was 1071, of which 540 were those of males, 531 those of females. The deaths from diarrhœa declined from 72 in the previous week to 64 last week. Scarlatina carried off 47 children, nearly the same number as in the previous week. Five children in a family were attacked by this disease; of these one died at home, and three in the London Fever Hospital; and the fifth is now hopelessly ill in the same Hospital. Seven persons died last week, whose ages were from 90 to 93 years.

Births.—The births of 828 boys and 768 girls, 1596 children, were registered. Average 1417.

Deaths in Public Institutions for the Weeks ending Saturday, October 4:—

	Males.	Females.	Total.
Workhouses	42	45	87
Prisons	1	1	2
Military and Naval Asylums ..	8	..	8
General Hospitals	30	12	42
Hospitals for Special Diseases ..	9	8	17
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	1	..	1
Hospitals for Foreigners, etc. ..	..	..	..
Lunatic Asylums	8	2	10
Total	99	68	167

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, October* 4, 1856.

Causes of Death.	In the Week ending Saturday, Oct. 4, 1856. Deaths of Persons. At all Ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.	55°3						53°7
All Causes	1071	530	163	186	155	37	1122·6
Specified Causes	1069	530	162	186	154	37	1114·6
Diseases:—							
1. Zymotic Class	256	192	25	21	15	3	360·3
2. Dropsy, Cancer, and others of uncertain seat	46	4	4	19	15	4	44·4
3. Tubercular Class	187	59	68	53	7	..	167·0
4. Of Brain, Nerves, etc. ..	99	45	12	18	20	4	114·8
5. Of Heart, etc.	48	3	4	18	20	3	36·1
6. Of Respiratory Organs ..	143	92	9	14	25	3	111·2
7. Of Digestive Organs ..	48	21	4	8	15	..	63·3
8. Of Kidneys, etc.	24	2	4	7	10	1	11·2
9. Of Uterus; viz. — Puerperal Disease, etc. ..	13	..	10	3	..	..	9·1
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	11	6	2	2	1	..	7·3
11. Of Skin, etc.	4	..	..	3	..	1	2·0
12. Malformations	3	3	..	..	..	..	4·1
13. Debility from Premature Birth, etc.	30	30	..	..	..	..	27·8
14. Atrophy	35	27	..	3	5	..	29·3
15. Age	30	..	..	..	13	17	39·7
16. Sudden	15	7	2	4	2	..	20·6
17. Violence, Privation, etc...	77	39	18	13	6	1	66·0
Causes not specified.. ..	2	..	1	..	1	..	8·4

ORIGINAL LECTURES.

LECTURES
ON
GENERAL NATURAL HISTORY.

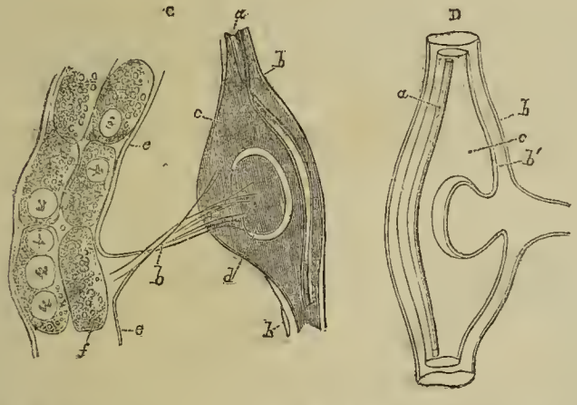
By THOMAS H. HUXLEY, F.R.S.,
Lecturer on General Natural History at the Government School of Mines and Fullerian Professor of Physiology, Royal Institution.

LECTURE VIII.

Mermis albicans attains a length of from four to five inches, but is not more than one-fourth or one-fifth of a line broad. At one extremity of the body the very small, circular, mouth is situated, but there is no anus, the only other aperture being that of the generative apparatus, situated, in the female, a little behind the middle of the body, while, in the male, it is close to the posterior extremity. The males, far fewer than the females, are distinguishable by their double penis; but it is curious that some females are provided with the external organs of the male.

The integument is thick, fibrous, and composed of chitin; it presents no trace of cilia. Within it, three broad bands of longitudinal muscular fibres extend through the whole length of the body.

Fig. 6.



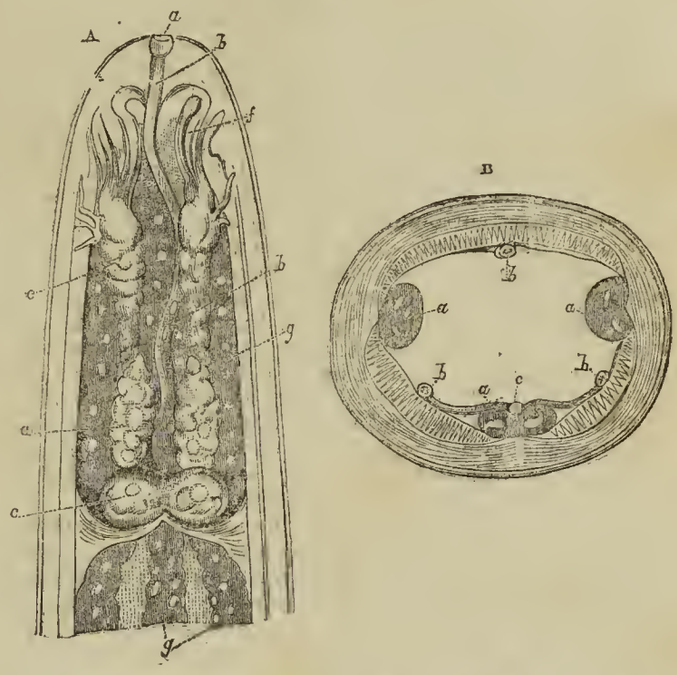
C. Part of the alimentary apparatus of *Mermis*, highly magnified. *a*. Chitinous œsophagus. *b*. Investing membrane continued into wall of corpus adiposum *e*. *c*. Viscid substance. *d*. Hemispherical gastric cavity. *f*. Cells of corpus adiposum. D. Diagram of one of the enlargements upon the œsophagus.

The alimentary system of Mermis (Fig. 6.) is singularly atrophied. The oral aperture, not more than 1-2000th of an inch in diameter, is connected with a short œsophagus seven or eight lines long, strengthened by a narrow chitinous band, so folded as to form a groove or semi-canal, whose edges only coalesce towards the anterior extremity, where they form a ring embracing the oral aperture. At the other end the semi-canal terminates in a rounded extremity like that of a director. A layer of a viscid substance, inclosed by a very delicate membrane, surrounds the œsophagus, on one side of which it is accumulated at intervals; so that the whole cord-like alimentary canal has a moniliform appearance. There are about thirty of these enlargements, the largest having a diameter of about 1-100th of an inch. The axis of each enlargement is occupied by a hemispherical cavity which opens externally, but is in no way directly connected with the œsophagus, a layer of the viscid substance intervening between the two. These are called the "gastric cavities" by Meissner.

The whole of this alimentary canal is inclosed within a membranous sheath which follows its form, and commences immediately behind the oral aperture. Opposite the mouth of each gastric cavity the sheath is produced into a canal which passes directly into the wall of the "corpus adiposum," a sac filled with a double series of large cellæform bodies, which extends uninterruptedly from one extremity of the body to the other, and anteriorly is, as it were, twisted up with the alimentary canal. By means of these canals, therefore, the cavity of the *corpus adiposum* is continuous with that of the sheath surrounding the alimentary canal; but it does not communicate directly with the œsophagus, and any nutritive matters which enter that tube must be strained through the layer of viscid substance before they can reach the cavity of the corpus adiposum.

In the interspaces between the three longitudinal muscles three bands, or thickenings (Fig. 7. A. *g*.), composed of a peculiar cellular substance, run along the walls of the body, from which they are separated only where they pass through the ring formed by the nervous ganglia.

Fig. 7.



A. Anterior extremity of *Mermis* (after Meissner). *a*. Mouth. *b*. Gullet. *c*. Ganglionic circlet. *d*. Anterior and *e* posterior ganglionic masses. *f*. Nerves to the oral papillæ. *g*. Cellular bands. B. Transverse section of Mermis. *a*. Cellular bands. *b*. Lateral nerves. *c*. Splanchnic nerve.

The nervous system is very well developed in *Mermis*, and is divisible into three portions—a central, a peripheral, and an intestinal. The central portion is composed of two principal parts, the one of which, representing the circle of œsophageal ganglia, lies in the head, the other in the caudal extremity. The œsophageal circlet is formed by a thick mass above and below, united by narrower lateral commissural bands. From the latter, anterior trunks proceed to two ganglionic masses, one placed in front of the other, on each side of the œsophagus; while posteriorly a dorsal and two lateral peripheral nerve-trunks run along the parietes of the body, one corresponding with the centre of each longitudinal muscle, and connect the œsophageal ganglia with the rest of the central nervous system, formed by the three caudal ganglia, which are, in fact, only ganglionic enlargements of the extremities of the longitudinal trunks. A fourth longitudinal "splanchnic" trunk runs along the ventral "cellular cord," and is connected with an extensive nervous plexus surrounding the viscera, particularly the sexual organs.

These organs consist, in the male, of a long tube divided into four sections, performing the different functions of testis, vas deferens, vesicula seminalis, and ejaculatory duct.

The genital aperture is placed upon an elevated papilla, marked by a tri-radiate aperture. The middle ray is the opening of the ejaculatory duct, while the two lateral ones give exit to the two curved, grooved, chitinous, spicula or penes.

The female sexual organs are double, consisting of two cœca, one lying in the anterior, and one in the posterior, half of the body, which unite in a short common vagina. Each tube is divisible into a proximal portion, continuous with the vagina, and, like it, provided with very muscular walls, representing an uterus and an oviduct; and a distal part with thin walls, in which the ova are developed, and, at first pale and very small, successively acquire their yelk-granules and their albumen.

The genus *Gordius*, while agreeing in habit and general structure with *Mermis*, differs from it in certain structural peculiarities of considerable interest. The alimentary system is even more rudimentary, consisting only of a short, narrow, infundibuliform canal, which leads at once into a wide membranous sac, filled with cells, which more resemble a vegetable than an animal tissue. This sac, with its contents, represents the "corpus adiposum" of *Mermis*, and occupies the entire interior of the body, with the exception of three longitudinal cavities, which commence close to the anterior extremity of the animal. One of these is occupied by a secretory organ, homologous with the cellular bands in Mermis, but open at each end, near the anterior and posterior extremities of the body; the other two are filled by the genital tubes, which unite together, and open at the caudal end. The male has no penis, but possesses a bifurcated caudal extremity.

The muscles form a thick continuous layer of longitudinal fibres, which extend throughout the whole length of the body, and are only partially interrupted circumferentially by a cylindrical cord (possibly itself of a muscular nature) upon the middle of the ventral surface. Beneath this cord the nervous trunk, which is single, and is connected anteriorly with a ganglionic mass, surrounding the œsophagus, lies.

Gordius, like *Mermis*, remains asexual so long as it is contained within the body of the terrestrial insect which it ordinarily infests, but eventually it makes its way out into fresh water, where it attains its full dimensions and developes sexual elements. Copulation takes place, and the ova, which are very minute, are laid in long strings coiled up into a mass.

The embryo differs widely from the parent, and almost resembles an *Echinorhynchus*, its anterior extremity being retractile, and armed with a double circlet of hooklets, in addition to a terminal spine. It is not ciliated, but lies sluggishly at the bottom of the water, awaiting the chance contact of some animal fitted to become its residence. Meissner, in fact, actually observed the embryo burrowing into the legs of Ephemerid larvæ which rested on the bottom of the vessel in which they were contained. From the legs they passed into the body of the Ephemerid, and here became encysted. Further than this the course of development of *Gordius* has not yet been traced.

Considering how frequently the parasitic *Nematoidea*—the "round worms" or "thread-worms"—have been made the subject of investigation, it is wonderful how little is really known of their organization beyond the form and arrangement of their alimentary and reproductive apparatuses.

The body of these elongated and smooth, or at most, obscurely annulated worms, is usually pointed at one or both extremities, and is invested in a structureless, chitinous coat, beneath which lies a corium composed of successive layers of fibres directed longitudinally, transversely, and obliquely. These fibres have been frequently described and figured as muscles; but the true muscles are arranged in four bands of longitudinal fibres, two dorsal and two ventral, being separated by as many longitudinal ridges of tissue connected with the integument; the lateral ridges are broad and band-like, the dorsal and ventral ones narrow.

Von Siebold describes an additional layer of transverse muscles within the longitudinal set in the *Nematoidea*; but Meissner suggests that these supposed transverse muscles are, as in the *Gordiacei*, the branches of the peripheral nerve-trunks, and I am inclined to believe that this is the true state of the case. Very little is accurately known with regard to the arrangement of the nervous system in the *Nematoidea*. Otto described a nodulated cord running down the middle of the ventral surface of *Strongylus gigas*, giving off but few branches, and ending in an enlargement at the anterior and posterior extremities of the body. Besides this cord, Professor Owen states, that the œsophagus and the anus are surrounded by slender, nervous rings (a). Otto further describes a nodulated dorsal and ventral cord in *Ascaris lumbricoides*. Cloquet, who also observed these cords, found them to be connected by a ring around the œsophagus; and he adds, that the ventral cord divides to give passage to the vagina. Dr. Grant figures and describes a double nervous cord traversing the body in *Ascaris*; and Blanchard has endeavoured to demonstrate the existence of a nervous circle surrounding the gullet, and provided with ganglionic enlargements at opposite points of its circumference, from whence longitudinal cords run backwards along the parietes, in several species of *Ascaris*, in *Sclerostoma* and in *Strongylus gigas*.

Considering the difference in the arrangement of the nervous system in *Gordius* and in *Mermis*, it will not be wonderful if further investigation demonstrates the existence of considerable variety in the arrangement of the nervous system of the *Nematoidea*.

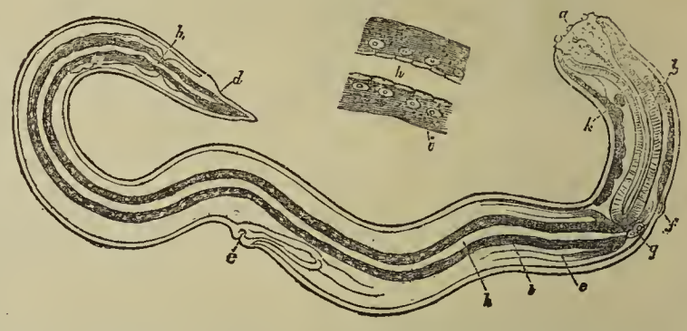
The alimentary canal of the *Nematoidea* runs in a straight line from the mouth, which is always situated at the anterior extremity of the body, to the anus, whose position is usually subterminal. The mouth is ordinarily surrounded by papillæ, and is provided with a more or less complex horny armature in some species of *Strongylus*, and in *Cucullanus*. It leads into a strong muscular pharynx, whence a straight tube, representing the stomach and intestine, leads into the short and muscular rectum. Three or four glandular cœca, probably salivary organs, open into the mouth in some *Nematoidea*; and in certain ascarids, a cœcum projects forwards from the commencement of the intestine over the pharynx, while in others a cœcum extends from the pharynx along the intestine. No special hepatic organs have been observed in the *Nematoidea*.

The reproductive organs are long tubes coiled around the alimentary canal, and opening in the female, with very few exceptions, in the middle or anterior portion of the body; while in the male they end at or near its posterior extremity. The female organs, consisting of an ovarium, an oviduct, and an uterus, are sometimes single, but are more usually double tubes, opening by a common vagina.

The male apparatus is always a single tube, divisible into a testis, a vas deferens, a vesicula seminalis, and an ejaculatory duct. The latter opens into a muscular sheath, containing the single or double horny penis, or spiculum. These bodies are protruded by the contraction of the sheath, and retracted by special muscles attached to the inner surface of the parietes of the body.

The Spermatozoa, like those of the *Gordiacei*, are immovable and never filiform.

Fig. 8.



Oxyaris.—*a.* Mouth. *b.* Pharynx. *c.* Commencement of intestine and *d.* its termination. The intermediate portion is not figured. *e.* Genital aperture. *f.* Opening of vessels. *g.* Their receptacle. *h.* One of the vessels. *i.* Cellular matter enveloping them. A portion of one of the contractile vessels is represented above, more highly magnified.

The vascular system of the *Nematoidea* can hardly be said to be satisfactorily made out. According to Von Siebold, there lies in the perivisceral cavity of *Filaria piscium* and *Ascaris osculata* a band-like organ, traversed by numerous vascular ramifications, and closely resembling the menisci of *Echinorhynchus* in structure.

Furthermore, in many *Nematoidea*, according to the same observer, a fine transverse slit is situated upon the ventral surface at a greater or less distance behind the head, from which two tubes, containing a clear and colourless liquid, run backwards on each side of the alimentary canal. To these two anterior branches are in some cases added. Von Siebold regards this as a secretory apparatus.

In a species of *Oxyuris*, from the Plaice, I have found a structure which appears to be of the same nature. Two vessels are contained in the lateral intermuscular bands, extending from the caudal extremity, where they end cœcally, to the commencement of the pharynx; here they send off a branch which becomes anteriorly, and then arch over to a common receptacle which appears to open externally on the ventral surface. These vessels contained a clear fluid, and contracted through their whole length, at intervals, so as to become almost

(a) Von Siebold (Verglischende Anatomie, p. 126) does not confirm this statement, as Professor Owen (Lectures on the Invertebrata, 2nd edition, p. 101) asserts, but merely endorses the more important part of Otto's discovery.

invisible. I have observed these vessels in this one specimen and in this single species of Nematoid alone (b); but the structure was so clear and distinct, that I have no hesitation in describing it here, more particularly as it seems to throw some light on the results obtained by Blanchard, who endeavoured to inject the vessels of the *Nematoidea*, and succeeded in filling longitudinal trunks connected by a transverse canal, which, so far as can be judged from his figures and description, occupy a position similar to that of the vessels just described. The structure of the lateral band in which these vessels were contained was similar to that of the cellular bands of *Mermis*, inasmuch as they were composed of a slightly granular substance containing imbedded clear spaces with nucleus-like particles; and I am inclined to suspect that they are homologous organs.

I think there can be little doubt that these vessels represent the contractile portion of that vascular system peculiar to the *Annuloida*, which we have seen taking such different forms in different divisions of the group. In all the *Annuloida* the usually colourless, corpusculated, true blood, occupies the perivisceral cavity, and is neither contained within special vessels, nor provided with any propulsive apparatus, except cilia. But in the *Annuloida* there exist one or more systems of vessels which have been more or less confounded with true blood-vessels. In the *Trematoda*, the *Tæniadæ*, the *Rotifera*, and the great majority of the *Turbellaria*, it is certain that the only vessels which exist are "the water-vessels," a system of tubes always provided with an external aperture, and usually divisible into two distinct portions; one nearer the aperture, contractile and not ciliated; the other ramifying through the body, richly ciliated and not at all contractile.

In the *Trematoda*, as we have seen, these two sets of vessels, though continuous, and communicating with one another, are often exceedingly different in aspect, and appear to be perfectly distinct—the contractile portion, or "excretory organ," being frequently full of granules, which never make their appearance spontaneously in the other part, and can only with difficulty be forced from the one into the other.

Again, the proportion of the ciliated vessels, and of those free from cilia, may vary very much. In *Aspidogaster*, all the vessels, except the two contractile trunks, are ciliated, while in the *Tæniadæ*, and some *Trematoda*, the cilia are only visible in the extreme ramifications; the principal trunks being entirely free from them, and containing a clear, strongly-refracting fluid, which, as we have seen in some cases, takes a reddish hue.

Now, since the *Nematoidea* appear to possess only the contractile, non-ciliated vessels in their simplest form, their vascular system, if I am right in regarding the vessels which I have described, as such, would appear to correspond with the two lateral contractile trunks of *Aspidogaster*, without any of the ciliated ramuscules.

In *Amphiptyches urna*, which is assuredly either a Trematode, or the Proglottis of one of the *Tæniadæ*, the vessels appear to be entirely non-ciliated, and to have no discoverable external aperture, an arrangement which leads us to the vessels of the *Acanthocephala*.

The *Nemertidæ* seem to differ from their close allies, the *Turbellaria*, in possessing a vascular system distinct from and added to the water-vessels; but are these new vessels really additional? Are they not, in fact, related to the ciliated vessels, as the contractile, non-ciliated trunks of the *Trematoda* are to the ciliated vessels? In the absence of any evidence to the contrary, I venture to think that this is the safest interpretation to be put upon the facts; but the consequences of the admission are important, inasmuch as there can be little doubt of the homology of the contractile vessels of the *Nemertidæ* with the "pseud-hæmal" vessels of the *Annelida* and their allies.

I am much inclined to think that this view will turn out to be correct, but I put it forward simply as an hypothesis; and you must remember that there are other ways of looking at the facts. In the *Hirudinidæ*, and in the Earthworms, a system of vessels homologous with the pseud-hæmal system exists, and, in addition, a series of more or less coiled tubules lie in the perivisceral cavity, and open, by pores, on the ventral surface of the body. These organs have been regarded sometimes as a secretory, sometimes as a respiratory, apparatus; but all that we know about them, in reality, is, that they are tubular, that they are more or less richly ciliated within, and that, in some cases (*Nais*, *Lumbricus*), they present at their internal extremities, a ciliated aperture, whereby they freely communicate with the perivisceral cavity. Now, the usually received doctrine is, that these organs have no communication with the pseud-hæmal vessels; and if, with Leydig and others, we regard them as the homologues of the water-vessels of the *Rotifera*, etc., it would seem a just conclusion that the pseud-hæmal vessels are something superadded in the *Annelida* and *Hirudinidæ*,—something which is not represented in the *Trematoda*.

However, certain facts oppose themselves strongly to this conclusion. In the Scoleid genera, *Clepsine* and *Nephelis*, ciliated, rosette-like organs are seated within enlargements of the lateral pseud-hæmal vessels; so that we have here either ciliated pseud-hæmal vessels, or, if Leydig's supposition—that the "rosettes" are the ends of tubes homologous with the ciliated coiled tubes of other Scoleids and Annelids—is correct, there is a direct continuity of the one set of canals with the other. In either case, the line of demarcation between the two would be broken down. In the Echinoderms, again, we shall find a system of pseud-hæmal vessels, usually non-ciliated and contractile; but in *Synapta*, the ends of these vessels present open ciliated extremities, which lie free in the mesenteric cavity. Leydig has already pointed out the similarity of these organs to the ciliated tubes of the *Scoleidæ*, and to the water-vessels of the *Rotifera;* but, on the other hand, it appears no less certain that the so-called blood-vessels of the Echinoderms are homologous with the pseud-hæmal vessels of the Annelids, and hence we must conclude, that the water-vessels of the *Rotifera*, *Trematoda*, etc., the ciliated "secretory" organs, and the pseud-hæmal vessels, are all modifications of one system.

There remains, however, yet another system of vessels in the *Annuloida*—the ambulacral vessels of the *Echinodermata*. These are frequently termed "water-vessels;" and, indeed, if we regard their structure without reference to their peculiar functions, they singularly resemble the true water-vessels; they open by an external pore; they are ciliated internally; they unite around the gullet, as do the water-vessels in some *Trematoda*, and they are eventually distributed to the walls of the body. Furthermore, they help us to understand how a system of vessels, primitively communicating with the exterior, may become completely shut off from such communication—the ambulacral vessels of the *Holothuridea* undergoing precisely this change—and thus they facilitate our comprehension of transition from the water-vessels of the *Trematoda* to the pseud-hæmal vessels of the *Annelida*. But it may be asked, if the ambulacral vessels are homologous with the water-vascular system, how can the pseud-hæmal vessels of of the Echinoderm, which all the evidence we have tends to show are quite distinct from the ambulacral vessels, be also the homologues of the water-vascular system as just now stated? In answer to this question, I can only say, that the evidence of the distinctness of the pseud-hæmal and ambulacral vessels in the Echinodermata is entirely negative. Injections cannot be made to pass from one to the other; and they are very different in structure. Injections have, however, been found equally sufficient to demonstrate the connexion of the two portions of the vascular system of the *Trematoda* with one another; and the difference of structure is not greater than that which exists between these so-called excretory organs and the ciliated vessels in the Trematoda.

In conclusion, I repeat that there seems to me to be good grounds for the hypothesis, that only one vascular system, variously modified, exists in all the *Annuloida;* but that I regard this generalization, for the present, as merely an hypothesis, whose value must be determined by further investigation.

On the other hand, we may take it as an established fact that, whatever the functions of this varied vascular system and its contents, in different classes of the *Annuloida*, they have nothing to do with the blood or true blood-vessels. The latter are entirely absent in all the *Annuloida* at present known; the blood (c) being simply contained in the perivisceral cavity and its processes.

(b) Mr. Busk appears to have observed similar canals in *Filaria Medinensis* and in *Ascaris lumbricoides*. See Observations on the Structure and Nature of Filaria Medinensis, Transactions of the Microscopical Society, vol. ii. p. 70.

(c) I am quite unable to understand the necessity or the propriety of calling the blood of the *Annuloida* "chyle-aqueous" fluid. I believe it to be impossible to draw any line of demarcation between this fluid and true blood.

The development of the *Nematoidea* appears to take place without metamorphosis; the embryo assuming within the egg a form nearly resembling that of the adult. But we know very little of the nature of the wanderings which many nematoid embryos probably undergo, before reaching the animal in which alone they can attain their sexual condition. Encysted asexual nematoid worms are frequently found in the peritonæum and other parts of the body of Fishes; and the remarkable *Trichina spiralis* is the asexual state of a nematoid worm, encysted within the substance of the muscles of Man. These, like other encysted Entozoa, are probably awaiting their transference to a more favourable nidus. Zooid development is only known to occur in one Nematoid, the *Filaria medinensis*, or Guinea worm, where Mr. Busk's careful observations have long since placed the fact beyond all doubt.

The Guinea worm is a formidable parasite infesting the connective tissues of the natives of certain of the hotter regions of the world, principally of Asia and Africa. It grows to a length of five or six feet before causing much annoyance, and then the head boring through the skin gives rise to a troublesome and painful sore. The worm is about 1-12th of an inch in diameter, and presents a minute rounded oral orifice at its anterior extremity, opening into a narrow intestinal tube, which traverses the body and ends cœcally at its posterior extremity, there being no anus(d). There is no genital aperture, nor are any distinct genital organs discoverable; but all the fully grown specimens contain numerous young, which are developed within a pultaceous matter filling up the entire interval between the intestine and the parietes of the body. No males have yet been discovered; and there appears to be every reason to agree with Mr. Busk's conclusion, that the Guinea worm stands in the relation of a *Redia* to its progeny. The young *Filaria* is very small, and possesses a rounded body, with an attenuated tail. At the anterior truncated extremity is placed the mouth, communicating with a narrow and somewhat spirally arranged blind tube, which appears to represent the intestine; and the cavity of the body is filled with a coarse granular matter. In this condition the young are discharged from the open end of the body of the parent (the head is usually very soon broken off); and, while many perish, others make their way into the water. What changes they undergo here,—whether, like the Gordius, they assume a sexual condition, and the embryos thence resulting live in the water until some fit nidus for their reception presents itself, or whether they remain in their primitive form, and only multiply sexually,—is not known.

LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.,

Assistant-Surgeon to the Royal Orthopædic Hospital; Lecturer on Surgery at the Grosvenor-Place School; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital, etc.

LECTURE IX.

CONGENITAL TALIPES VARUS—*Continued.*

Morbid Anatomy in the Adult, concluded.—Etiology.—Hereditary Transmission.—Numerical Importance.—Complications of Varus.

Conditions of the Articular Surfaces in the Joints Implicated.—On this important part of our subject I am unable to give you any positive information from my own dissection; nor am I aware that the condition of the articular cartilages in any adult case of congenital varus has been described. In the dried specimens I have examined, and in that from which I am now largely drawing my description, the articular cartilage on the exposed and extruded portions of the articular surfaces—viz., the anterior portion of the superior and external lateral articular surfaces of the astragalus; the outer portion of the head of the astragalus; and the anterior articular surface of the os calcis—appears to be much wasted, and irregularly removed, so that only a thin and imperfect layer remains. These appearances we might expect to find, not only as the result of disuse, but because the articular surfaces are superficially exposed, and subject to irritating influences; though it should be observed that they are always covered by the elongated ligaments which are stretched across them. These surfaces sometimes present an irregular or mamillated appearance, in consequence of irregular thickening of the osseous surfaces. In the unexposed portions of the articular surfaces, it is probable that the cartilage remains in a tolerably healthy condition, though it may be thinner than natural. This subject is of importance, inasmuch as it relates to the restoration of the functions of the joints after the cure of the deformity, and as far as I can form an opinion, it appears that although the exposed portions of the articular surfaces in adult varus are not in a healthy condition, still, as the ligaments retain their normal relations, as far as their attachments are concerned, the articular surfaces would be found available, to a certain extent, after the removal of the deformity.

Ligaments.—One of the most important effects of allowing congenital varus to remain unrelieved is that, during the growth of the foot in the deformed position, the ligaments become more perfectly adapted in their length and direction to the abnormal relations of the bones, and most materially tend to render the deformity either very difficult of cure, or permanent and incurable, in proportion to the lapse of time. I am unable to describe to you the precise deviations in the ligaments from any recent dissections of adult varus, but the description of severe and rigid infantile cases I have previously given you from my own dissection, and the general observations I then made are, for the most part, applicable to the adult deformity. In infantile cases some of the strongest ligaments of the foot are always found to be shortened in proportion to the severity of the case, causing a rigidity of the foot in its deformed position, from which the severity of the case may be more properly judged of, than by the particular angle the foot may happen to form with the leg. This ligamentous rigidity exists to a very variable extent in infantile cases, and I may observe that at an early age, slight and moderately severe cases are the rule, and very severe cases the exception; but in adult congenital cases, although some difference exists, ligamentous rigidity is constant and severe; the foot has grown in the deformed position from birth, and adapted ligamentous shortening is a certain and invariable result. Severe ligamentous rigidity is then the rule in the adult, and the exception in the infant. As an example of this ligamentous rigidity in the adult, I will refer to the dissection of the club-footed man whose skeleton is in St. Bartholomew's museum. My friend, Mr. Holmes Coote, who dissected the deformity in this case, kindly furnished me with the details in which the following observation occurs:—"On the right side, I divided the tendons of the tibialis anticus, and the extensors of the toes; also the tendo-Achillis. Very little mobility of the foot ensued. I then divided all the tendons, both flexors and extensors, in succession. The distortion remained, and was only partially relieved by division of the plantar fascia. By grasping the toes, and then forcing them, I got the foot into its proper bearings, but I felt numerous interosseous bands give way." There can be no doubt that in this case, the ligaments were very perfectly adapted, in their general direction and length, to the deformed position of the foot.

In non-congenital cases, which are most frequently of paralytic origin, this ligamentous rigidity is generally very slight; because, although the foot has grown in the deformed position from infancy or childhood, the general nutrition of the limb is much lower than in the congenital cases, in which no paralysis exists. Practically speaking, we know that the non-congenital cases can be cured in as many weeks as the congenital cases require months.

Ligaments of the ankle-joint.—In reference to congenital varus in the adult, if we speak of all the ligaments surrounding the ankle-joint collectively, it may be said that anteriorly, and on the outer side towards the front part, the ligaments are extremely elongated; and posteriorly and laterally on both sides, extremely shortened or contracted. The internal lateral, or deltoid ligament, is also contracted in its anterior portion, and powerfully assists in retaining the navicular bone in contact with the inner malleolus. In

(d) May not this possibly be a corpus adiposum like that of *Gordius* and *Mermis?*

the specimen I now exhibit to you, we see the anterior part of the capsular ligament of the ankle-joint extremely elongated and stretched over the extruded portion of the superior articular surface of the astragalus (Fig. 36 and 38), and the anterior portion of the external lateral ligament is seen elongated, and stretched over the extruded portion of the fibular articular surface of the astragalus.

On the posterior aspect of the ankle-joint we can scarcely distinguish any ligamentous structures at all in this specimen, and from the direct contact of the posterior margin of the tibia with the superior surface of the os calcis, it is obvious that they must be shortened to an extreme degree. The resistance offered by this ligamentous contraction to the depression of the os calcis, has been lately demonstrated by Mr. Lonsdale in the recent dissection of a foot which I removed from a boy who had been under treatment at the Orthopædic Hospital, and died of scarlet fever. The case had not progressed favourably, in consequence of the severity of this contraction. In the same specimen the contraction of the anterior part of the deltoid ligament, and consequent difficulty in the restoration of the navicular bone, after division of the posterior tibial tendon, was very obvious.

Ligaments of the tarsal joints.—Of the ligaments connecting the tarsal bones, it may be said generally, that those on the dorsal aspect are elongated, though this is more obvious in some situations than in others; while nearly all the ligaments on the plantar aspect of the foot are shortened to an extreme degree. In this specimen we see the outer portion of the ligament connecting the astragalus with the navicular bone very much elongated, and stretched over the outer portion of the head of the astragalus left uncovered by the displacement of the navicular bone (Fig. 38). The ligament passing between the outer surface of the os calcis and cuboid bone, is also seen to be very much elongated, and stretched across the anterior articular surfaces of the os calcis, left exposed by the displacement of the cuboid bone. The other ligamentous bands on the dorsum of the foot are but very little elongated, as the tarsal joints are only a little widened externally.

In the sole of the foot, deep in the concavity of the arch, or rather in the angle formed by the lateral flexion of the anterior two-thirds of the foot, it is obvious, from the close approximation of the tarsal bones, and the shortening of the foot in this specimen, that the calcaneo-cuboid, calcaneo-scaphoid, and the other ligamentous bands connecting the tarsal bones are very materially shortened; but, from their dried and ill-defined condition, they cannot be separately described.

The plantar fascia we know from our practical experience to be very much shortened, and in its tense and contracted condition to offer a formidable obstacle to the restoration of the foot in the adult deformity; and I mentioned to you that it is sometimes much contracted in infantile cases. In the latter class sometimes the inner band only is contracted, but in the more severe cases the central portion is always contracted, as it is in the adult, and requires a complete division. The muscles in the sole of the foot beneath the plantar fascia, and arising from it as well as from the os calcis, are also much shorter than natural, so that a free division, not only of the fascia, but of the subjacent muscular fibres, is necessary to the restoration of the anterior portion of the foot to its normal position.

The depth at which this fascia lies from the surface often appears to be increased, and consequently its contraction is sometimes overlooked, especially in fat children. The plantar fascia has been dissected away in the present specimen, but it must have been extremely contracted.

Simultaneously with these deep structural changes affecting the bones and ligaments, other abnormal conditions are also occurring in the muscles, tendons, and other structures.

Muscles.—During the persistence of club-foot, the muscles of the leg, below knee, which I need hardly remind you are all destined to regulate the movements of the foot, are almost entirely thrown out of action. It is true that the muscles of the calf still continue to assist in maintaining the erect position of the body, but in consequence of the immoveable condition of the ankle-joint these muscles are called upon to perform only a portion of their functions; so that in all the muscles of the leg, very defective growth is the result. In the last lecture I compared the measurements of a club-footed leg in an adult, with those of the healthy leg in the same individual, and showed you that the former was 2½ inches less in circumference than the latter round the calf, the most prominent part of which was also 3 inches higher than in the healthy leg; from this we may also infer that the bellies of the muscles which form the calf, are deficient in length as well as in circumference. This condition, I believe, obtains equally in all the muscles of the leg below knee, and accounts for the fact that the tendons are really longer in the adult club-footed leg than in the healthy leg. The high position of the calf, however, is also contributed to by the elevation of the os calcis.

Whether the muscles at the same time undergo any process of structural degeneration, in consequence of their inaction, I am unable to say, not having dissected the leg of an adult affected with congenital club-foot. In non-congenital cases of varus and equino-varus, which is the more frequent variety, we know that fatty degeneration of the muscles reaches an extreme degree: but in such cases paralysis most commonly lays the foundation of the mischief, and we should therefore expect such a result. I have myself examined several such specimens, and have described and figured the appearances seen on microscopical examination in the Transactions of the Pathological Society, Vol. iii. plate 12. The specimen of varus showing extreme fatty degeneration of the muscles, figured by Cruveilhier and supposed by him to have been of congenital origin, and to which I have previously adverted, I believe belonged to this class of non-congenital paralytic deformities.

I have previously shown you that in some very severe cases, the muscular structures are found in variously abnormal conditions at the period of birth, and therefore in such cases, degeneration of the muscles would be found equally at more advanced ages; but referring to the ordinary cases in which the muscles are healthy at the period of birth, it is probable that some structural degeneration does take place during their long period of inactivity when the deformity remains unrelieved up to the adult period of life; but I suspect this is not very considerable. Defective growth appears to be the leading phenomenon. I give this as my opinion, because I have observed that after the cure of the deformity, even in its most severe degree, in adults, as in the case represented in Fig. 32, the small and apparently atrophied muscles of the calf acquire, after a few months' exercise, their natural degree of firmness and power proportionate to their bulk. In the case adverted to they became, after exercise and shampooing, as hard as well-nourished and well-exercised muscles in a healthy individual. The expression of the patient, "that his muscles were little but good," sufficiently expresses their condition, and is opposed to the idea that structural degeneration had taken place to any considerable extent, or to a degree beyond recovery. This degree of improvement was not only manifest in the muscles of the calf, but he also acquired full power in the peronei, extensor longus digitorum, extensor pollicis, and tibialis anticus muscles, which could have been but very imperfectly called into action during the existence of the deformity.

Tendons.—The observations previously made in reference to the tendons in severe infantile cases of varus, are, for the most part, applicable to this deformity in the adult, especially as to their deviation in direction and altered relations in adaptation to the deformed position of the foot. In the adult, all these deviations become more confirmed. The osseous grooves along which several of the tendons pass towards their insertions, become deepened in some situations, and the sheaths of the tendons become thickened. In the specimen in St. Thomas's museum, the groove for the posterior tibial tendon on the inner malleolus, and the grooves for the peronei tendons on the outer surface of the os calcis, are seen to be much deeper than natural. In the notes of the dissection of the case in St. Bartholomew's museum, Mr. Coote observes:—"The sheaths of the tendons were everywhere thicker and stronger than natural." In the specimen I now exhibit to you, these appearances are not remarkable; but, in explanation, it must be remembered that the leg belonged to a female, and, in consequence of intractable ulceration on the dorsum of the foot, which had resisted various methods of treatment for a year or two previous to its amputation, the limb had, in this instance, been but little used for a long time.

Another peculiarity with respect to the tendons in the adult deformity is, that all the tendons below the knee are really longer, and much more slender than in the healthy leg. The

tendo-Achillis is often not more than half its natural size. The increased length of the tendons depends upon the small size of the bellies of the muscles, the result of their imperfect development from inaction, which I have above adverted to; and the thinness of the tendons also depends upon the defective nutrition, from want of exercise, the results of which, as affecting the bones as well as the soft tissues of the leg, and giving to it the external appearance of a dwindled or withered limb, are remarkably well illustrated in the club-footed leg in the adult.

Abnormal distribution and insertion of tendons.—I have previously mentioned that, in my dissections of fœtal specimens of varus, I have in several instances met with some irregularities in the distribution and insertions of tendons, not consequent upon the deformity of the foot. These generally refer either to supernumerary slips of tendon met with in the sole of the foot, and sometimes on the dorsum; or to a very distinct bifurcation of the anterior tibial tendon, of which I have met with three examples; one slip pursuing its normal course, and the other passing externally to an expanded insertion into the anterior annular ligament, or the fascia on the dorsum of the foot a little below the ligament. I have seen the tendon of the extensor pollicis passing between these two portions of the anterior tibial in two instances; so that as the tendons cross the ankle-joint—the point we select for division—it might be necessary to divide three tendons instead of one. In the account of the dissection of the specimen in St. Bartholomew's museum, Mr. Holmes Coote says:—"The tendon of the tibialis anticus appeared to be very long, in consequence of the small size of the belly of the muscle, which arose as usual; but the tendon was inserted, 1st, into the internal cuneiform bone; 2nd, into the anterior annular ligament;" and he also observes, that "the tendons of the extensor communis digitorum and the peroneus tertius were united by very strong and broad fibrous bands." The frequency of the bifurcation of the tibialis anticus tendon appears to be somewhat remarkable.

Deviations in direction and relative position of tendons depending upon the deformity.—These are essentially the same as the deviations I have previously described as existing in severe infantile cases; but some additional points, remarkably well seen in the specimen I now exhibit to you (Fig. 36, 37, and 38), require to be noticed.

All the tendons in front of the ankle-joint are inclined to the inner side of the leg in adaptation to the altered position of the foot.

The tendon of the tibialis anticus muscle inclines towards the inner side of the tibia above the epiphysis; it then passes obliquely downwards and backwards on the surface of the inner malleolus, and takes a curved direction inwards and backwards towards the base of the metatarsal bone of the great toe, and the adjacent border of the inner cuneiform bone (Figs. 37 and 38). These bones not only occupy a lateral position with respect to the leg, but in adult cases are generally placed rather behind than in front of the transverse median plane of the leg. The anterior tibial tendon, therefore, as it crosses the ankle-joint—the point we select for its division—is not only displaced very much to the inner side, but also passes from the inner malleolus in an oblique direction behind rather than in front of this process; so much so, indeed, that it may very possibly have been divided in mistake for the posterior tibial tendon, by those who attempt to divide the latter tendon in the position which it would occupy in the healthy condition of the foot, viz., below and in front of the inner malleolus, as recommended by Mr. Syme. The anterior tibial is certainly the only tendon with which the knife could come in contact, if the operation above adverted to should be attempted in a severe and rigid case, whether infantile or adult.

Mr. Henry Thompson, in his description of a dissection which he made of a case of varus, and to which I shall again allude, observes:—"The anterior tibial tendon is displaced backwards; so that, at the lower end of the bone, it passes over the back of the inner malleolus, and thence directly backwards to the first metatarsal bone."

It is very important to bear in mind the altered relations of this tendon, as it is often more difficult to find than might be supposed, especially in very fat children.

The tendon of the extensor pollicis muscle is also displaced towards the inner side in a proportionate degree; and occupies, in its relation to the inner malleolus, pretty much the situation which the anterior tibial tendon holds in the healthy condition of the foot (Fig. 38).

The tendons of the extensor longus digitorum muscle likewise incline very much to the inner side in their passage across the ankle-joint; but, as their division is never required in this deformity, this deviation is unimportant.

The tendon of the tibialis posticus muscle has been particularly described in its abnormal relations in severe infantile varus; but, although these deviations are essentially the same as in the adult, the only difference being that the parts are more rigidly held in their abnormal relations, they may be again mentioned here in consequence of their direct practical importance, which may be illustrated by a few additional remarks. The posterior tibial tendon, *in the first part of its course*, is not so distinctly placed behind the inner malleolus as in a healthy foot, but is lodged in a groove rather on than behind this process (Fig. 38), and can generally be felt externally in this situation; but the appearance of being placed on the outer surface of the malleolus (generally described in this deformity) is very much added to by the lateral obliquity of the os calcis, the tuberosity of which is directly behind the fibula, exposing to view the posterior surface of the tibia, in what might be regarded as the lateral aspect of the foot; and also by the inner malleolus itself being somewhat twisted forwards in the adult cases we are now describing. *In the second part of its course*, the posterior tibial tendon does not pass beneath the inner malleolus, and then obliquely downwards and forwards, in front of this process, to its insertion into the navicular bone, as in the healthy foot; because the navicular bone itself is displaced by the contraction of the posterior tibial muscle, so as to be held in contact, and articulate with, the inner malleolus; and, moreover, is rigidly held in this position by the adapted shortening of the ligaments, more especially the deltoid ligament. This tendon, therefore, passes directly downwards from the inner malleolus to its first insertion into the navicular bone, which it immediately reaches.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ACUTE IDIOPATHIC RIGHT PNEUMONIA, NEGLECTED FOR A WEEK.

By RICHARD NEALE, M.D. Lond., etc.
Formerly Physician Assistant to University College Hospital.

The subject of the following case, under the care of my friend, Dr. Roden, of Droitwich, also came under my own observation, and presenting several points of practical interest, I have, with my friend's permission and aid, drawn up the subjoined condensed report:—

The patient was a Medical man, of about 30 years of age, of rather active disposition, and sanguine temperament. No hereditary taint. His health has been impaired for the last few years, rendering residence in the country advisable. Married. Habits regular and abstemious; seldom suffers from any particular ailment, except occasional severe bilious attacks. About twelve years since, he had rather a severe attack of bronchitis, with slight pneumonia of the left lung. Nearly four years and a-half ago, over-fatigue, mental and physical, induced serious general constitutional disturbance, which removal to London, combined with rest and judicious Medical treatment, quickly removed. For the last four years he has been engaged in country practice up to the moment of the present attack. For some months previous to his present illness, not feeling very well, has walked a good deal for the sake of exercise.

May 2, 1856.—During his rounds he complained of sickness, and had a little diarrhœa, which, however, quickly

passed off; and after a walk of five or six miles, ate a very fair dinner, and thought nothing more of it.

3rd.—Did not feel well, but walked five or six miles in a bitterly cold, easterly wind.

4th.—Able to attend to his duties. Appetite good, although told by friends that he was looking ill, and excessively bilious. Retired at the usual hour, after a light supper; passed rather a restless night, and complained of an uncomfortable feeling in the bowels.

5th.—5 a.m. he awoke with severe shiverings and intense cephalalgia, with excessive discomfort down the back of the thighs and legs, from which he could not get ease in any position. Fancying it to be a severe bilious attack coming on, he administered a copious warm salt and water enema, which dislodged a large quantity of offensive fæces; and took 4 grs. of blue pill, combined with 6 of compound extract of colocynth, and 2 grains of opium. Great relief was afforded to all the symptoms, and sickness coming on, first, intensely bitter bile was ejected, and then matter, described as tasting like tallow, attributed to some fat of beef eaten the day before. He kept his bed the whole day, and passed a tolerable night.

6th.—After several stools, and taking 2 grains of opium, he dressed, and drove out for three hours, visiting patients, arming himself with a good supply of water, of which he had drunk large quantities. All who saw him exclaimed at his cadaverous appearance, and on his return he threw himself, dressed, on the bed, and on awaking from a doze, complained of a peculiar pain on the right side, "just as though the pectoralis minor had been bruised by lying on a ruck of the bedclothes." In those positions that relaxed the muscles no pain was felt, but at no time was it very acute. Repeated the aperient pills.

7th.—Able to dress at 10 a.m., and walk with difficulty a quarter of a mile to see a patient. Slight cough with scanty frothy expectoration. On his return went again to bed, and passed an indifferent night

8th.—Cough more troublesome, expectoration still scanty, but more abundant and thicker, pain much the same, no noticeable dyspnœa. Thinking that it could not be a common bilious attack he sent to ask his friend Dr. Roden, to see him either that day or the next; but, later in the day, the expectoration assumed an alarming appearance, revealing the true nature of the case to him. Crachats nummulares rather hæmorrhagic than the usual rusty colour of pneumonic sputum, and more aerated, were expectorated, not more than perhaps 5 or 6 times during as many hours.

Another messenger was immediately despatched for Dr. Roden, who came as quickly as possible.

Examination discovered that respiration was nil over the whole right side, from base to apex, no crepitant ronchus; bronchophony; slight friction at the base, and in various parts below the nipple. Percussion note absolutely dull from infra-clavicular region downwards. Marked jaundice. Pulse 140. Cupping to the extent of 8 ounces over the base of the lung, gave great relief, and the following mixture was prescribed at 10 p.m.

Ammon. carb. ʒj.; neutralized with lemon-juice. Aq. ad ʒviij. M. ft. Mist. ʒi. tertiis horis.

Turpentine epithems to right thoracic region.

9th.—Passed a tolerably comfortable night. The cerebral activity, however, was intense; but never, through the attack, accompanied with delirium.

The patient described everything as being in the most violent motion. Directly he shut his eyes, children would fly into atoms, as they too energetically worked their arms and legs; horses with their riders would perform most extravagant evolutions; phantoms insisted on arguing knotty points with the greatest perseverance and most energetic action, but directly he opened his eyes all these illusions vanished.

The action of the heart to day, as well as yesterday, was highly excited; the patient could not endure being spoken to, and preferred being left alone with the nurse.

Respiration and pulse both diminished in frequency, the latter 136, and feeble, respiration was heard before clavicle down to nipple. The dulness of other parts, though great, was not of so leaden a character, as on the 8th. Expectoration very scanty, and but slightly streaked with blood. Skin acting copiously, as well as the kidneys, which poured out a large quantity of offensive secretion, loaded to an extraordinary degree with purpurine, so much so as to give, at first sight, the idea of hæmaturia.

Constant supplies of beef-tea and other diluents were given, iced water affording, apparently, the greatest gratification.

℞ Rept. mist. c. tr. digitalis ʒij., ʒj. 3tis horis. Persist in with epithem.

10th.—Illusions still present, and preventing sleep. Removal from bed to sofa brought on a severe fit of coughing and caused great agony; however, a sitting posture gave so much relief, that the patient had himself propped up in an arm-chair all this day and following night, indeed, till 4 p.m. the next day. Respiratory murmur heard well above, redux crepitus below. Circulation much less excited. Respiration fuller and less frequent; expectoration scanty and colourless. Urine still loaded with purpurine, offensive and copious. Skin acting freely. Cap. mist. 4tis h. Omit epithem.

11th.—Patient passed a tranquil night, slept for a few hours and awoke so much better as to doubt his personal identity; all cerebral activity was stayed.

10 a.m. Auscultation revealed everything progressing most favourably; the pulse was still high and bounding; the mixture was continued as before, and the last dose was taken at noon. At this time the patient began to feel oppressed; the perspiration poured in jets from every pore of the body, running down on the floor and saturating the blankets in which he was wrapped; the only comfort was derived from sipping iced water. At 4 p.m. a good deal of prostration was present, evidently due to the digitalis; but removal to bed, with a little stimulant, quickly restored the flagging pulse.

Beef tea and eggs with sherry were given during the night, and on the 12th, the patient was quite another being; felt, in fact, well as he said. Respiration audible to the base; no cough, no expectoration.

13th.—Improving rapidly, constant craving for nourishment.

14th.—Sat up most of the day undressed. Not auscultated; urine clear; skin acting moderately; a little diarrhœa present.

15th.—Dressed and got into his study, and amused himself all day with reading, writing, and microscope, etc. Appetite insatiable. A little catching on deep inspiration.

18th.—Insisted upon getting out into the garden to indulge in a breath of fresh air. The patient from this time continued gradually getting better, and was able on the 19th to resume his duties with help.

June 27th.—Examined by Dr. Walshe, who found the percussion note over the whole right lung of a wooden dulness. Respiration not one-third the amount on this side as on the left. Residence at the sea-side in the South of England appears to have restored him to his usual health. One point deserving of particular notice was the peculiar vesication caused by the turpentine epithems. This consisted of an immense crop of small vesicles like those of herpes circinnatus, more than anything else; but the cuticle covering them had a sodden white colour; the pain caused by pressure on this part was most acute.

The preceding case greatly interested me at the time, on account of the various points of a practical nature that it offered; and thinking it would interest some of my professional brethren, I have drawn up as correct a report as the circumstances admitted. The numerous omissions must be excused; for those who are engaged in country practice know how difficult it is to keep a daily accurate record of an interesting case.

Ventnor, September, 1856.

REMOVAL OF HÆMORRHOIDAL TUMOURS BY THE ECRASEUR.

By A. T. H. WATERS, Esq.
Surgeon to the Liverpool Northern Dispensary, and
Lecturer on Anatomy and Physiology at the Liverpool Royal Infirmary School of Medicine.

In the last number of the *Medical Times and Gazette*, an article by Mr. Spencer Wells appears, on the use of the *écraseur*. Having lately had an opportunity of using the instrument, I am induced to publish the results of the operations I have performed. I operated last week on the following cases :—

On a man suffering from an extensive growth of internal hæmorrhoids, forming a complete bunch round the margin of the anus, when protruded from the gut. The patient had lost a good deal of blood from time to time, and was in consequence much reduced.

Chloroform having been administered, and the piles seized by a vulsellum, the chain of the *écraseur* was applied, first to one portion of the mass, and afterwards to a second portion. In about three minutes and a-half, the separation of each morbid growth was effected. There was slight bleeding at the time, but it very soon ceased, and there was no recurrence. The patient has progressed without a single unfavourable symptom, and is now convalescent. The freedom from pain and irritation after the operation was remarkable.

On a woman suffering from internal hæmorrhoids, and a prolapsed condition of the mucous membrane of the rectum. Chloroform was again used. The diseased structure was removed by two applications of the instrument, being first seized and pulled down by a vulsellum. Only a few drops of blood were lost.

For some time previous to the operation the woman had suffered from excessive irritation of the bladder, being obliged to pass water four or five times every hour, the attempts being accompanied with great bearing down of the rectum. After the operation, although told to keep perfectly quiet, she got up several times in the course of a few hours, to pass water, and there was much straining of the rectum ; a small quantity of blood was lost, but only a small quantity, and the hæmorrhage soon ceased. An opiate which was ordered for her was accidentally omitted, or this might possibly have been avoided. The small amount of hæmorrhage that took place during such violent straining efforts, proves how effectually the instrument strangles the vessels.

The patient has progressed without an unfavourable symptom, the pain has been very slight, and the irritation of the bladder less than before the operation.

Both these patients were operated on in the presence of my colleagues at the Dispensary.

The instrument I used was one manufactured by Luer. It is worked by a screw, and the chain which divides the structures to be removed, is gradually drawn into a cylinder, through which the chain runs. Two links opposite each other are simultaneously withdrawn ; each link is about the third of an inch long, and it requires twenty-six revolutions of the handle which turns the screw, to shorten the chain to the extent of a link. The screw is, I think, an improvement on the racket and pinion movement, with which some of the instruments are made, as by its means the tumours can, more gradually, and without any sudden shortening of the chain, be removed. The word *écraseur* seems to me to be less applicable to the instrument than *étrangleur*. Luer's instrument is more expensive than one on the same principle manufactured by Charrière ; but, having examined both, I believe one is equally as good as the other.

Before operating on the above cases, I removed the thigh of a rabbit with the instrument. There was no hæmorrhage ; the muscles were cleanly divided ; but the soft skin was dragged into the interior of the cylinder by the chain. There is a chance of such an occurrence in using the instrument on soft mucous membranes, but it is of little moment.

Having used chloroform in these cases, I am unable to speak as to the amount of pain the instrument causes ; but with reference to its value, as far as I can judge, it is likely to supersede the use of ligatures and the knife for the removal of internal and external hæmorrhoids, and some tumours in other situations ; but of its applicability to some of the cases in which its inventor has used it, I should entertain serious doubts.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. GEORGE'S HOSPITAL.

TABLES OF CASES OF AMPUTATION, COMPOUND FRACTURE, AND OPERATIONS FOR STRANGULATED HERNIA IN 1854.

(Communicated by T. HOLMES, F.R.C.S., Surgical Registrar.)

I enclose the third of the annual series of tables of amputations, cases of compound fracture, and operations for hernia, at St. George's Hospital, which you are kind enough to publish. The tables for 1853 appeared in your paper of July 15, 1854. Various causes have combined to delay the appearance of the present tables, but the notes were all taken at the time, and by the bedside of the patient, and you may depend on the accuracy of the details. Some remarks appended to the previous series alluded to the unfavourable influence exercised on our rate of mortality by the disposition to pyæmia which then prevailed. You will observe that this epidemic was not mitigated in the past year, nor, I am sorry to say, does it show any sign of declining in the present. Nor is this the only epidemic which has added to the dangers of our surgical operations in the Hospitals of the metropolis of late years. Phagedæna, both of the spreading and sloughing variety, has been rife in St. George's, and I believe in all the other London Hospitals ; while erysipelas, though not peculiarly prominent, maintains, at least, its average rate. Now it is no doubt a work of some interest and importance to register these occurrences ; but surely it behoves us to do our best to investigate their causes, with a view to their prevention, as far as may be found possible, in future. It is to this object that I would invite, through your columns, the co-operation of those gentlemen who are engaged, like myself, in observing and recording the practice of our great Hospitals in London and elsewhere. It may be within the recollection of your readers, that a Hospitals Committee was formed in 1854 by the Epidemiological Society, for the purpose of investigating the relative predominance of these diseases in the various Hospitals of London and the country, as connected with the sanitary conditions of the buildings themselves. I have the honour of being Joint-Secretary to this Committee, with Dr. Sibson, of Brook-street, and either of us will be most happy to furnish more particular information to any one who may wish for it with respect to our methods and objects. By a recent resolution of the Committee, all Hospital Registrars are ex officio members of it. It is unnecessary to point out the benefits which might result to the patients of our various Hospitals from extensive and well-digested researches into the arrangements of the institutions in which they are to be treated. We issued, at that time, certain forms of queries to be filled up by the registrars, housesurgeons, or other officers of the various Hospitals, and forwarded them to all the Hospitals in London, and many of those in the country ; but whether from want of confidence in the promoters of the scheme, disapproval of the method, or indifference to its objects (for I cannot suppose that any petty jealousy could hinder any one from co-operating in so good a cause), the number of answers that we obtained was insignificant. We have decided on renewing our attempt in the ensuing year, and I hope with better prospects of success. May I take this opportunity of requesting, through the medium of your influential Journal, the aid of any one holding a permanent position in a London or country Hospital, with whom we have not as yet been enabled to communicate ?

Table of Cases of Compound Fracture.

No.	Sex and Age.	Occupation and General Habits.	Date of Admission.	Nature of Accident.	Limb.	State of Wound and Fracture.	Treatment.	Result, and Duration of Disease.	Remarks.
1	M. 46	Labourer; intemperate.	June 26	Struck on the leg by a heavy pole swinging round.	Left leg.	Lacerated wound, about an inch in length; not very much contusion; oblique fracture of both bones.	Assalini's box; laudanum and stimulants; incisions to afford exit to confined matter.	Cured; 90 days.	
2	M. 30	Groom; probably intemperate.	Feb. 6	Thrown from a horse.	Right leg.	Wound about 1½ in. long, caused by the lower fragment of the tibia, which protruded about an inch from the surface; considerable hæmorrhage from small vessels; transverse fracture of the tibia about its middle; fibula fractured lower down.	Assalini's box; laudanum; diffusible stimulants; wine; then quinine, laudanum, and brandy.	Cured; 128 days.	The fracture was considerably distorted on recovery; it seemed at one time doubtful whether the limb could be saved; he could not bear the extension necessary to keep the bones in position.
3	M. 27	Workman; temperate.	Mar. 24	Fell in jumping from a carriage in motion.	Right leg.	Fracture of the lower end of the tibia into the ankle-joint, and of the fibula higher up; partial dislocation inwards; small, clean wound; bone not protruding.	Assalini's box; incisions to allow of the escape of confined matter.	Cured; 68 days.	Recovered, with perfect motion of the foot.
4	F. 37	Dressmaker; dissipated habits.	May 6	Thrown down, and stamped on, in a struggle.	Left leg.	Two contused wounds; one, at the inside of the leg, led to a transverse fracture of the tibia, a short distance above the ankle, which communicated with that joint, as was proved on P.-M. examination; the fibula was fractured higher up; the other wound was superficial.	Assalini's box; repeated doses of laudanum; occasional purgatives.	Died; 8 days.	Violent irritative fever; obscure symptoms of pyæmia; no distinct P.-M. appearances.
5	M. 50	Carman.	June 2	A van fell on his leg.	Right leg.	Three small wounds, about 2 in. below the spine of the tibia, all communicating with the fracture; oblique fracture of both bones, at the lower part of the upper third of the limb.	Assalini's box; good diet, with vinous and diffusible stimulants; the lower wound enlarged to favour the escape of matter.	Died; 14 days.	P.-M. examination showed pyæmia; secondary phlebitis and congestion of the lungs.
6	M. 24	Stable-man; temperate.	June 21	The leg jammed against a cart by a runaway horse which he was riding.	Right leg.	Contused wound, about ½ in. long, 2 in. below the patella, giving exit to a fluid somewhat resembling synovia.	Assalini's box; occasional opiates and purgatives.	Cured; 37 days.	—
7	M. 48	Labourer.	July 31	Fall off the top of a house.	Arm.	—	—	Died; 4 hours.	He died of other injuries, viz., compound fracture of the pelvis, with laceration of the femoral vein.
8	M. 70	Carpenter; temperate.	Aug. 18	Fall from a pair of steps.	Right leg.	Lacerated wound, about 1 in. in length, produced by the upper fragment of the tibia; the fracture of the tibia was much comminuted, extending downwards towards the ankles, and commencing 3 in. above it; the fibula was fractured transversely.	The end of the upper fragment of the tibia had to be cut off before reduction could be effected; Assalini's box; wine; good diet; tonics; laudanum.	Died; 6 days.	Gangrene of the soft parts was commencing; he seemed to sink from exhaustion produced by old age, and the copious discharge from the wound; no P.-M. examination.
9	M. 42	Porter.	Aug. 23	Fall on the pavement.	Right leg.	A very small wound, with protrusion of the upper fragment of the tibia; transverse fracture of both bones.	Assalini's box; enlargement of the original wound.	Cured; 77 days.	—
10	M. 20	Labourer; temperate.	Nov. 6	Fall from a ladder.	Right leg.	Lacerated wound, about 3 in. long, over the tibia; the upper fragment of the tibia projected from the wound; oblique fracture of both bones at the upper part of the lower third.	A piece of the upper fragment of the tibia sawn off; Assalini's box; opium; then salines and antimony; then nourishing diet; incisions to allow of the escape of matter; wine; brandy; chlorate of potash; astringents.	Died; 23 days.	The parts sloughed; inflammation of the absorbents occurred, and subsided before death; P.-M. examination showed pyæmia, inflammation of the superficial veins of the leg, and secondary abscesses in the lungs.
11	M. 36	Labourer; temperate.	Nov. 16	Run over by the wheel of a heavy cart.	Right leg (tibia only).	A large contused wound, 5 in. long, over the course of the anterior tibial artery; fracture of the tibia about the junction of the lower and the middle third; the upper fragment projected considerably, and was splintered to some extent.	A piece of the upper fragment sawn off; Assalini's box; opium; wine; good diet; diffusible stimulants.	Died; 18 days.	P.-M. examination showed pyæmia; secondary deposits in the lungs and shoulder-joints.

Summary of the preceding Table:—Total number of cases, 11; 6 died.

Of the Leg, 10; (1 of the tibia only); 5 died, 3 of pyæmia, 1 of irritative fever, 1 of exhaustion and old age.

Of the Arm, 1; died of other injuries.

Table of Cases of Amputation.

Number.	Sex and Age.	Occupation.	What Limb amputated — Circular or Flap.	Why Amputated.	Right or Left Extremities.	Date of Operation.	Result, and at what period.	Remarks.
1	M. 28	Labourer.	Leg; flap.	Caries of bones of ankle and tarsus.	Left.	Jan. 11	Cured ; 63 days.	
2	M. 38	Packingcase maker.	Thigh ; flap.	Degeneration of the synovial membrane of the knee after synovitis; ulceration of the cartilages and abscess in the joint.	Left.	Mar. 2	Died ; 10 days.	Pyæmic. No P.-M. examination.
3	F. 15	None.	Thigh ; circular.	Abscess in the knee-joint.	Right.	April 6	Cured ; 55 days.	The abscess had been treated by incisions, but his health seemed likely to sink under the process necessary for recovery. The stump healed kindly.
4	M. 9	Child.	Thigh ; circular.	Strumous disease and abscess of the knee.	Right.	April 13	Cured ; 27 days.	
5	M. 27	Bargeman.	Thigh : circular.	Gangrene of the foot after ligature of the femoral artery for aneurism.	Left.	April 19	Died ; 18 days.	He was admitted with popliteal aneurism on both sides ; pressure was applied to both limbs, but unsuccessfully ; on the left side a rupture of the sac into the cellular tissue of the leg rendered ligature necessary ; this operation was accordingly performed, between four and five weeks after the commencement of the treatment ; gangrene of the foot showed itself on the sixth day after the operation, and on the following day the thigh was amputated. The stump showed no tendency to heal, and symptoms of pyæmia preceded his death. (For the dissection of the aneurism and other particulars see Post-mortem and Casebook, p. 122.)
6	M. 25	Labourer.	Arm ; circular.	Caries and necrosis of the bones of the elbow.	Left.	April 20	Cured ; 20 days.	
7	F. 12	Schoolgirl.	Arm; flap.	Incurable ulceration, the result of an extensive burn.	Left.	May 14	Cured ; 48 days.	
8	M. 31	Insurance agent.	Thigh ; circular.	Old disease and partial anchylosis of the knee, with abscess extending up the thigh.	Right.	May 18	Died ; 35 days.	The sinus of the abscess extending up the thigh broke out again soon after his discharge, and he was readmitted for a short time ; the abscess then did not appear to have any deep connexion.
9	M. 13	Schoolboy.	Thigh ; flap.	Strumous disease and abscess of the knee.	Right.	May 18	Died ; 27 days.	P.-M. examination showed pyæmia, diffuse suppuration in the femur ; inflammation of the profunda and femoral veins ; secondary abscess in the left lung and empyema on the same side.
10	M. 16	Apprentice.	Thigh ; circular.	Strumous disease of the knee, with ulceration of the cartilage.	Right.	June 8	Convalescent 62 days.	He had a severe attack of phagedæna of the stump.
11	M. 40	Labourer.	Thigh ; circular.	Old disease of the knee-joint with partial anchylosis, and constant pain on motion.	Right.	June 22	Cured ; 41 days.	He had a severe attack of sloughing phagedæna of the stump, which destroyed its symmetry.
12	M. 31	Labourer.	Arm ; circular.	Gangrene of the hand occurring after a fall on the elbow, while walking along a slightly raised path.	Right.	June 22	Cured ; 34 days.	The two principal arteries of the forearm were found to terminate about midway between the elbow and wrist, in a sloughy cavity, in which their ends were lying loose ; they appeared to have been blocked up with lymph above this part ; the interosseous artery was pervious ; there was no fracture of the bones. The gangrene commenced on the fourth day after the accident, but did not extend (or did so only very slowly) for several days ; amputation was performed on the twenty-seventh day after the accident ; he had a severe attack of secondary hæmorrhage ; otherwise did well.
13	F. 18	Servant.	Thigh ; flap.	Degeneration of the synovial membrane of the knee, after chronic synovitis ; ulceration of the cartilages.	Left.	Aug. 3	Cured ; 37 days.	
14	M. 41	Groom.	Leg; flap.	Caries of the bones of the foot and ankle.	Left.	Aug. 17	Died ; 7 days.	P.-M. examination showed pyæmia, with secondary deposits in the liver and lungs.
15	M. 24	Labourer.	Thigh ; flap.	Caries and necrosis of the tibia, with abscess in the head of the bone, and distortion of the limb.	Right.	Sept. 14	Cured ; 24 days.	He had diseased kidneys ; albuminuria, with slight anasarca.
16	F. 16	None.	Leg; flap.	Caries of the bones of the foot and ankle.	Left.	Nov. 2	Died ; 18 days.	The stump had nearly healed at the time of her death, and no morbid symptoms were observed connected with it. P.-M. examination showed strumous meningitis ; softening of the central portions of the brain, and dilatation of the ventricles ; miliary tubercles in the lungs, and strumous tubercle in the kidney, softening, and giving rise to abscess.
17	F. 26	Kitchen-maid.	Thigh ; circular.	Abscess in the knee-joint and ulceration of the cartilages.	Left.	Dec. 7	Died ; 18 days.	P.-M. examination showed pyæmia, pleurisy, secondary deposit in the lungs, and pus in the femoral vein.
18	M. 18	Barman.	Thigh ; circular.	Abscess in the knee-joint.	Left.	Dec. 7	Died ; 18 days.	P.-M. examination showed pyæmia, secondary deposit in the lungs ; pus in the femoral and iliac veins, with inflammation of their coats.

Summary of the preceding Table :—Total number of cases of amputation, 18 ; 7 died.

Of the Thigh, 12, all for disease ; 5 died, all of pyæmia ; 1 was an amputation for gangrene after ligature of the femoral artery.

Of the Leg, 3, all for disease ; 2 died, 1 of pyæmia, 1 of strumous disease of the brain and lungs.

Of the Arm, 3 ; 1 was secondary amputation, for gangrene occurring after an injury, the others for disease ; all recovered.

Table of Cases of Operations for Strangulated Hernia.

Number.	Sex and Age.	Occupation.	Nature of Hernia; Recent or Old; Truss worn or not.	Right or Left Extremity.	Period of Strangulation.	Date of Operation.	Contents of the Sac, and their Condition.	Sac Opened or not.	Result, and at what period.	Remarks, if Fatal Post-mortem Appearances, etc.
1	F. 66	Married woman.	Femoral, old; no truss.	Left.	5 days.	Jan. 11	A rather large knuckle of small intestine, not much congested, rather dull on the surface. A large mass of omentum, much thickened and altered in structure.	Opened.	Cured, 42 days.	The omentum was removed. From the length of time during which the constipation had lasted, and the slight change that had taken place in the intestine, it was conjectured that the latter had descended more recently, and that the contents of the sac were at first omental only.
2	M. 32	Waiter.	External inguinal; infantile variety, 20 years; truss.	Right.	2 days.	Mar. 10	A rather large knuckle of small intestine, almost black from congestion, and thickened; little fluid.	Opened.	Cured, 26 days.	A prolongation of the tunica vaginalis upwards lay in front of the hernial sac, behind which the cord was situated; the stricture was very tight, and high up; a small abscess found near the testicle after the operation. Otherwise there were no unfavourable symptoms.
3	F. 46	Married woman.	Femoral, 20 years; truss.	Left.	2 days.	Mar. 10	A piece of intestine, almost gangrenous, with a small opening in it, around which was an ecchymosis about the size of a 4d.-piece; fæcal fluid.	Opened.	Cured, 55 days.	On the sac (which was not adherent) being incised, a quantity of fluid, apparently fæcal, escaped; the gut was not collapsed, and on examination a small hole about the size of a pin's point was found in it, surrounded by a patch of ecchymosis; on handling the gut, its contents (pus mingled with fæcal matter) escaped, and the intestine collapsed. It did not appear to be gangrenous; the hole was therefore surrounded by a fine ligature, and the gut returned into the belly.
4	M. 54	Carman.	Femoral, 8 years; no truss.	Right.	36 hours.	Mar. 19	A large quantity of omentum (nearly surrounding the gut, but not forming a perfect omental sac), not much thickened, and of natural colour, adherent to the lower part of the sac. A knuckle of small intestine, not excessively congested.	Opened.	Died, 6 days.	The omentum was removed; fæcal vomiting continued for 2 days, with constipation; no motion of the bowels for more than 3 days; then diarrhœa set in, on the fifth day, and he sank rapidly from that time; P.-M. examination showed that sloughing of the constricted portion of intestine had been going on, and that it was perforated in one part, this perforation being closed by adhesion to another intestine; there were signs of incipient peritonitis.
5	F. 76	Widow.	Femoral, not observed before the date of strangulation.	Right.	2 days.	Mar. 27	A very small knuckle of intestine, much inflamed and thickened, but not black.	Opened.	Died, 6 days.	Fæcal vomiting came on on the second day after the operation, and continued at intervals during the time she survived; she had no action of the bowels after the operation; on examination the gut was found perforated in two places by ulceration; the portion which had been included in the stricture was gangrenous, and the fæces had escaped, and were lying near the wound, closed off from the general peritoneal cavity by adhesion of the various coils of intestine in the neighbourhood; the wound had been observed to emit an odour of fæces before her death.
6	F. 8	Child.	Femoral, recent; no truss.	Right.	30 hours.	April 17	A very small knuckle of intestine, coated with lymph, not dark. A small piece of omentum.	Opened.	Cured, 65 days.	At the operation, much fluid escaped from the peritoneal cavity; a large gland lay in front of the hernial sac; she had a severe attack of phagedæna of the wound.
7	F. 30	Married woman.	Femoral, 5 months; no truss.	Right.	24 hours.	April 26	A small knuckle of intestine, inflamed and adherent to the sac by very soft, recent lymph. A little serous fluid.	Opened.	Cured, 19 days.	She was 3 months gone in pregnancy at the time of the operation.
8	F. 40	Widow.	Femoral, 6 months; truss.	Right.	12 hours.	May 10	A small knuckle of intestine, highly inflamed, with much lymph on its surface. A little dark fluid.	Opened.	Cured, 21 days.	—
9	M. 40	Porter.	Oblique inguinal, old; truss.	Left.	8 hours.	May 10	A large knuckle of intestine, very much congested and almost black. A little fluid. Some omentum, apparently recently protruded.	Opened.	Cured, 21 days	This man had been operated on 6 months before, at another hospital, for strangulation of the same hernia; he had also rupture on the opposite side. The omentum contained in the sac was excised.
10	M. 14 mths.	Infant.	Congenital inguinal; truss.	Right.	6 hours.	May 14	A small knuckle of intestine, not much congested.	Opened.	Cured, 10 days.	Some difficulty was experienced in reaching the neck of the sac, where the strangulation existed, and which seemed to have been partially invaginated by the attempts which had been made at reduction.
11	F. 54	Housekeeper.	Femoral, 4 years; no truss.	Right.	4 days.	Aug. 5	A good deal of bloody serum. A rather large knuckle of small intestine, much congested, and almost black, but shining.	Opened.	Cured, 33 days.	The bowels were not moved till the fifth day after the operation (9 days after strangulation); as there were no unpleasant symptoms, no purgatives were given.
12	F. 50	Servant.	Femoral, 1 year; no truss.	Left.	3 days.	Aug. 18	Much clear serum. A small knuckle of congested intestine, not thickened.	Opened.	Cured, 19 days.	—
13	F. 50	Laundress.	Femoral, 2 years; no truss.	Left.	1 day.	Aug. 18	Bloody serum. A knuckle of thickened intestine, coated with lymph, and very dark coloured.	Opened.	Cured, 22 days.	After the return of the intestine a considerable quantity of clear serum escaped from the peritoneal cavity.
14	F. 62	Married woman.	Femoral, 2 years; no truss.	Left.	60 hours.	Sept. 6	A very little clear fluid. A knuckle of slightly congested omentum.	Opened.	Cured, 7 days.	The wound healed completely by the first intention.
15	M. 26	Blacksmith.	Oblique inguinal, 2½ years; truss.	Right.	8 hours.	Sept. 10	Much clear fluid; a piece of the small intestine, about 16 in. in length, of a bright red colour, not thickened nor coated with lymph; a large piece of recently protruded omentum.	Opened.	Cured, 20 days.	The omentum was returned.
16	M. 47	Baker.	Femoral, 3 years; no truss.	Left.	1 day.	Sept. 14	Bloody serum; a small knuckle of thickened intestine, of a dark chocolate colour; a small piece of adherent omentum.	Opened.	Died, 3 days (of cholera).	The omentum was cut off; after the return of the gut clear serum escaped out of the abdominal cavity. He was attacked, on the day after his admission, with cholera, of which he died; the symptoms were not at first very decided, but the choleraic aspect and smell were well marked just before his death.

Table of Cases of Operations for Strangulated Hernia—Continued.

Number.	Sex and Age.	Occupation.	Nature of Hernia; Recent or Old; Truss worn or not.	Right or Left Extremity.	Period of Strangulation.	Date of Operation.	Contents of the Sac, and their condition.	Sac Opened or not.	Result, and at what period.	Remarks—If Fatal, Post-mortem Appearances.
17	M. 58	Groom.	Oblique inguinal, old; no truss for the last year.	Right.	1 day.	Oct. 8	Clear serum; a large piece of the great intestine adherent to the anterior part of the sac by thin, recent adhesions, and to the posterior part by a firm, old band, which could not safely be divided; the gut was thickened, and its appendices epiploicæ matted together.	Opened.	Died, 102 days.	The stricture appeared to be formed principally by the membranes investing the sac, the fluid effused in which appeared also to cause obstruction; the gut was necessarily left unreduced; fluid escaped from the peritoneal cavity at the time of the operation; on the eighth day after it fæces escaped from the wound; this artificial anus gradually closed, and it was at one time so soundly healed that he was able to get about: it soon, however, broke out again, and prolapsus of the mucous membrane of the upper part of the gut occurred from it; an instrument was applied with the view of keeping this back and retaining the fæces; phagedæna, however, soon after attacked the wound, sloughing of which took place to a considerable extent; he lingered on a long while, and finally died, exhausted by the discharge.
18	M. 55	Carpenter.	Direct inguinal, 6 years; truss broken four days before admission.	Left.	16 hours.	Oct. 20	A large quantity of serum mixed with lymph; a piece of small intestine, not much congested.	Opened.	Died, 7 days.	Abscess and gangrene of the scrotum followed the operation; P.-M. examination showed extensive peritonitis.
19	M. 54	Stableman.	Oblique inguinal, 20 years; truss.	Right.	7 hours.	Oct. 29	Much clear serum; a large knuckle of healthy, small intestine.	Opened.	Died, 2 days.	Much difficulty was experienced in reducing the gut, in consequence of thickening and irregularity about the neck of the sac, where the stricture existed, and which was partially invaginated; acute peritonitis set in on the night of the operation, and proved rapidly fatal.
20	F. 33	Housemaid.	Femoral, recent; no truss.	Right.	2 days.	Nov. 20	Clear serum; a small piece of healthy omentum.	Opened.	Cured, 30 days.	The operation without opening the sac was unsuccessfully attempted.
21	F. 62	Married woman.	Femoral; old; no truss.	Left.	8 days.	Dec. 10	A small quantity of bloody serum; a large mass of thickened and sloughy omentum; a small knuckle of small intestine, of a pale ashy colour, not much thickened.	Opened.	Died, 2 hours.	This woman was admitted in a dying state; she had been vomiting fæces for several days, and on admission was quite pulseless and cold, with sunken features, and hardly able to speak; her evidently hopeless condition made it a question whether an operation should be performed or no, but as it was her wish it was not thought right to refuse; at the operation the omentum was removed, and the gut (which was not actually sloughing) returned; extensive peritonitis existed.
22	F. 61	Nurse.	Femoral, ½ a-year; no truss.	Left.	3 days.	Dec. 19	Bloody serum; a small knuckle of small intestine, coated with lymph, not very dark.	Opened.	Died, 4 days.	The operation without opening the sac was unsuccessfully attempted; P.-M. examination showed extensive peritonitis and commencing gangrene of the gut.
23	F. 60	Married woman.	Femoral, uncertain duration; no truss.	Left.	2 days.	Dec. 22	A small quantity of bloody serum; a large mass of sloughy omentum; a small knuckle of small intestine, not much thickened, and not showing any signs of acute inflammation, but almost black from congestion.	Opened.	Died, 32 days.	The sloughy omentum was removed; she went on well till within a few days of her death, and was able to leave her bed; then rapid and fatal prostration came on, apparently indicating perforation of the gut; P.-M. examination showed peritonitis, the large and small intestines extensively ulcerated and adhering to each other in one spot; the small intestine had given way, but there were no fæces in the peritoneal cavity.

Summary of the preceding Table:—Total number of cases, 23, 9 males and 14 females; 9 died, 1 of cholera.

Inguinal, 7, all males; 1 of them of the infantile, another of the congenital variety; 4 common oblique, and 1 direct; 3 died, 2 of peritonitis, 1 of exhaustion consequent on sloughing around an artificial anus, the result of ulceration of the gut.

Femoral, 16, 2 males and 14 females; 6 died, 1 of cholera, 1 of peritonitis, 3 of perforation of the intestine. The other who died was admitted in a moribund condition from neglected strangulation.

SHORT NOTICES OF HOSPITAL THERAPEUTICS.

IODINE INJECTIONS INTO OVARIAN CYSTS.

The treatment of ovarian cysts by the injection of solutions of iodine is decidedly gaining favour with the London Profession. Most of the cases which have been seen have been treated by Dr. West and Mr. Paget in St. Bartholomew's, and one is now under that of Dr. Barnes in the Metropolitan Free. In none, we believe, has complete success been obtained; but it has been thought that in most the tendency to refill has been decidedly restrained. By repeated operations probably some of the cases may yet be cured. In none have, we believe, any serious symptoms ensued. In general, the attempt to drain out the solution after a few minutes has been made; but in several, in which this could not be accomplished, from four to six ounces of the pharmacopœial tincture has been left in without ill consequences. Two fatal cases—one in the provinces and one in London—have come to our knowledge in which ascites was mistaken for ovarian dropsy, and the solution injected into the peritoneal cavity. In some cases the difficulty of diagnosis is extreme.

TREATMENT OF PHAGEDÆNA BY IRRIGATION.

The plan of treating phagedæna by the constant irrigation of the sore with warm water recently adopted by Mr. Cock in Guy's, to which we adverted on a former occasion still continues to be very highly thought of. There are situations in which it is impossible to employ it, and in these the plan of making the patient sit for long periods in a warm bath seems the best substitute. One such we recently saw under Mr. Paget's care in St. Bartholomew's, in which an enormous sore of this description involved the cleft of the nates in a young prostitute. It was too large for the successful use of nitric acid, and Mr. Paget ordered the use of the warm

hip-bath for long periods, and repeatedly in the day, remarking that he believed in several he had recently treated that simple measure had been effectual in arresting the disease. The water should be changed while the patient is in, the modus operandi being that all the particles of discharge, by the contagion of which the ulceration spreads, are thoroughly washed away. A plan lately recommended by Langenbeck, of placing unhealthy stumps in a trough of warm water, constantly kept in which, he states that they heal very rapidly, probably has its advantages on the same score.

EMETICS IN THE ONSET OF ERYSIPELAS.

Mr. Hilton, of Guy's, entertains a very high opinion of the usefulness of emetics given in the commencement of erysipelas. A case of amputation recently under his care had erysipelas over the stump, one morning, about a week after the operation. The man was ordered to take twenty-five grains of powdered ipecacuanha, with half-a-grain of tartar emetic immediately, the dose to be followed by a purgative; subsequently by ammonia and cordials. The inflammation did not spread. A few days afterwards, Mr. Hilton took occasion to direct the attention of his class to the abortive treatment which had been adopted, stating that he believed that, in a large majority of instances, the disease might be stopped by the early adoption of it. It is an old plan, but with many surgeons seems to have fallen into unmerited neglect.

THE PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

THE LEICESTER INFIRMARY.

OPERATION FOR HARELIP — REPEATED NON-UNION—PLASTER VERSUS PINS.

The following little fact is worthy of record. An adoption of Mr. Benfield's persevering treatment would probably prevent many of the failures which every now and then occur in Harelip operations:—

A healthy girl, aged 4, was operated on in the usual way for a single harelip on the left side. The pins were removed on the fifth day, and the parts immediately separated. The pins were reinserted, but when, on the third day following, they were again removed, the parts again separated. Isinglass plaster was now applied in long strips, and in about a fortnight the union was complete, excepting a small notch in the lower part of the wound.

We well recollect once seeing in Mr. Paget's out-patients' room several years ago, a case of which the lesson was very similar to that of the above. An infant was brought to him, on whom the usual operation for single harelip had been performed several days before by a Surgeon in private. The pins had been removed that morning, and the wound was gaping widely, not the least union having resulted. Mr. Paget at once reintroduced a pin, and brought the granulating edges into apposition. The result was a perfect union. There are many operations in plastic surgery in which, when primary union has not occurred, the case may yet be saved from failure by effecting a second coaptation, and taking advantage of the readiness with which granulating surfaces will unite.

DEATHS IN PUBLIC INSTITUTIONS for the Weeks ending Saturday, October 11:—

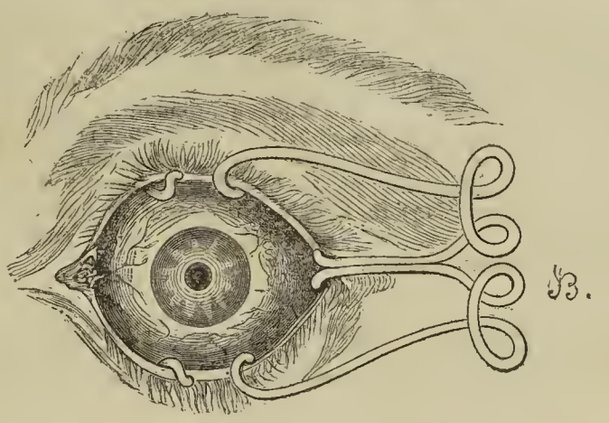
	Males.	Females.	Total.
Workhouses	38	47	85
Prisons	..	..	..
Military and Naval Asylums ..	10	..	10
General Hospitals	21	27	48
Hospitals for Special Diseases ..	1	2	3
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	2	..	2
Hospitals for Foreigners, etc. ..	1	..	1
Lunatic Asylums	5	1	6
Total	78	77	155

NEW INSTRUMENT.

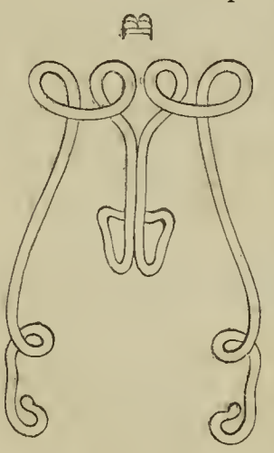
SPECULUM OCULI AND OPHTHALMOSTAT.

By J. RITCHIE BROWN, M.D.

To the already long list of inventions for retracting the eyelids and fixing the eyeball, I herewith add another. I make the more bold to do so, as I think, to a certain extent, it combines the properties of each. It is a combination of the old and much approved wire speculum of Pellier, with the fixateur of Nèlaton. The diagram will at once explain its construction. It is made of one piece of German silver wire.



The intermediate part, B, is first placed in the fold of the conjunctiva, which connects the external angle of the lids with the globe of the eye; the retractors are then adapted to the lids. By the pressure of the part B on the cul-de-sac of the conjunctiva, the eyeball is completely prevented from turning inwards.



To persons who have no assistant it will prove useful, as it leaves both hands free for such operations as artificial pupil, strabismus, snipping off small tumours, etc.; and this advantage is gained without any additional risk or pain to the patient, which can hardly be said of the ophthalmostats of Jaegar, Gräfe, or Rothmund.

The part B might also be adapted by means of a tube soldered to the spring, in which it may slide, so as to be regulated to avoid pressure on the eyeball, or be removed altogether at pleasure,

Vienna, Sept. 29, 1856.

NOTES AND QUERIES.

He that questioneth much shall learn much.—Bacon.

No. 137.—IMPERFECT INTERCOURSE.

[*To the Editor of the Medical Times and Gazette.*]

SIR,—Dr. West, in his work on the diseases of women, page 94, alludes to the evils resulting from imperfect intercourse; but, unfortunately, he does not give the symptoms or the treatment.

Perhaps some of your readers can furnish information respecting these cases, which, although hitherto unnoticed by English authors, are probably far from uncommon.

October 13, 1856. I am, &c. B. A.

ANSWERS.

To No. 131.—LEECHING.

[*To the Editor of the Medical Times and Gazette.*]

SIR,—In answer to Query No. 131, upon leeching, I enclose a copy of a note in my possession, which I remember taking from "Cooper's Surgical Dictionary," and, although it does

not directly answer the question put by "A Retired Practitioner," perhaps it may be the means of rendering him some assistance towards a further investigation :—

"When leeches are very scarce, their tails may be snipped off while they are sucking, and the blood will then flow, drop by drop, as fast as the animals suck it; or, with the same view, an incision may be made with a lancet close to the tail."

There appears a difference about when the tail ought to be taken off, and I should be inclined to say, a leech is more likely to bite before taking its tail off than after.

I am, &c. FREDERICK J. REILLY.

Globe-road, Mile-end, October 13, 1856.

To 132.—TANNED HUMAN SKIN.

SIR,—In answer to your correspondent K. Gilbert (Notes and Queries, No. 132), I beg leave to inform him that human skin has been tanned, and is now in the Museum of King's College, being that of Bishop (the murderer of the Italian boy). The skeleton of the same gentleman is also there. They were both preserved, I believe, by Professor Partridge, who, instead of being eccentric (as your correspondent expresses it), is *concentric*, for he has added some of the most valuable preparations to King's Museum with his indefatigable care. I am, &c. VERITAS.

Naas, Kildare, Ireland.

ANOTHER ANSWER.

SIR,—The eccentric Surgeon alluded to in your Query No. 132, was "Dick Smith," of Bristol; but I fear a history of his life would scarcely do for your "Great Ones of the Past."

I am, &c. P. A.

To 133.—LEPER HOSPITALS.

SIR,—The following are references to writings containing interesting information upon the Leprosy of the Middle Ages and Leper Houses :—Professor Simpson in *Edinburgh Medical and Surgical Journal*, Vols. LVI. and LVII.; Dr. Stratton in Vol. LXXVI. of the same journal; Millingen Curiosities of Medical Experience; Shapter on Leprosy of Middle Ages (1835); the *Saturday Magazine*, Vol. XXIV. (1844); and Gibert in Vol. III., for 1840, of the *Revue Médicale*.

I am, &c. J. C.

ANOTHER ANSWER.

SIR,—The following piece of information may be of interest to the "Country Surgeon" who inquires about Hospitals for Lepers :—

In Man's "History of Reading," published A.D. 1816, I find the second Abbot of Reading, who succeeded in the year 1129, "Ausgerus, called in the Monasticon Aucherius, founded in Reading an Hospital for Lepers, in honour of St. Mary Magdalene, near St. Laurence's Church."

According to the original institution, every leper was allowed half-a-loaf a-day, half-a-gallon of middling beer, fivepence a-month for meat, sevenpence for their servants, and every year a cloak, a vest, a mantle, two shirts, and all *other* woollens.

The rules of the Hospital were, that if any brother was found guilty of adultery or struck another in anger, he was to be expelled. They were to rise at the first ringing of the bell to go to church. He that gave another the lie was to fast the whole day on bread and water; if he resented it, he was to fast the second day; and if he was still angry the third day, to lose the charity for forty days. No one was to go abroad without a companion. If anything were given to one abroad, it was to be in common, unless given particularly by kindred or friends. None were to go abroad without leave, nor into their laundress's houses without a companion.

I am, etc. A. F.

October 13, 1856.

To 136.—HUXLEY ON CELL-DEVELOPMENT.

SIR,—Professor Huxley has stated his views upon Cell-Development in the *British and Foreign Medico-Chirurgical Review* for October, 1853, and in a Paper read at the Royal Institution, April 15, 1853. I am, &c. J. C.

OXFORD UNIVERSITY.—The laboratory in the Ashmolean Museum will open for instruction in Practical Chemistry, on Tuesday, the 21st, and thereafter daily, from 10 a.m. to 5 p.m., Mondays excepted.

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Medical Times & Gazette.

SATURDAY, OCTOBER 18.

FEES.

A friend of ours, whom we may call Dr. Green, not long since had some money left him by an eccentric patient, but a doubt arose as to the interpretation of more than one clause in the will, and the doctor was obliged unfortunately to obtain legal advice. He thought he would get the opinion of a leading barrister without delay, so he came up to town by express-train, and went direct to the chambers of Sir Frederick Thesiger. Here he was told by the clerk that Sir Frederick could only be approached through an attorney; and he soon found that no barrister of any standing in his profession will give a legal opinion direct to a client. It was not a very difficult matter to find an attorney in London, so a statement of the case was drawn up and submitted for counsel's opinion; but before the case was submitted to the barrister, his clerk received the usual fee, and Dr. Green, becoming a little enlightened as to the etiquette of the bar, found that no barrister's clerk ever thought of troubling his principal with a case until the fee had been received. After waiting three or four days in town, the doctor obtained the opinion he had sought, but it was of such a nature as led him to wish for a personal interview with Sir Frederick. "Well," said the attorney, "we will have a consultation." "Bravo," replied friend Green, "suppose we go down at once." But here again he found he had something to learn. The attorney must go to the clerk, pay a fee of two guineas, and then an appointment for consultation would be made.

The affair was delayed by a variety of circumstances, and Dr. Green had plenty of time to call on his Medical friends in town. He went to see an eminent Physician at the West-end, a man in the very first class of his Profession. He arrived about noon. The waiting-room was well filled, and some five or six persons passed into the consulting-room before our friend's turn arrived. However, it came at last, and he congratulated the great man on a "good day." "You would scarcely believe it," was the reply; "but I assure you I have sat here since ten o'clock, and have seen patients as fast as I could, yet I have only taken one guinea. There are so many artists, governesses, and clergymen; so many connexions of Medical men, druggists, or dentists; so many literary men; and so many impostors who profess a claim upon one, that my mornings are frequently taken up with them, and patients who would pay become tired of waiting, and go off." Dr. Green began to think the barrister's plan was

not a bad one. Another day he called on a Medical baronet, who told him very much the same story, and showed him *two shillings*, very nicely wrapped up in paper, which he had received the day before as a fee. When a leading Physician-Accoucheur told him he had been so often served this trick that he now invariably opened his fee paper in the patient's presence, Dr. Green began to think the barrister's plan decidedly a good one. He was invited to breakfast by a young Surgeon recently returned from the East, who enlightened him a little more on the subject. A short time before this Surgeon went abroad a lady called at his house one afternoon, left a message that she would call next day at half-past eleven precisely, and hoped she would not be kept in the waiting-room. She was punctual, was shown into the consulting-room at once, and immediately proceeded to beg for a three guinea subscription to an engraving upon which she said her husband was engaged. About the same time a gentleman-like foreigner called, also in the afternoon. Finding that the Surgeon was not at home, this distinguished foreigner went in and wrote a note. The Surgeon had had a hard day's work, and arrived at home just in time for dinner. He opened the note, and found an urgent request to go to Eccleston-square to see the Baroness Staurbach, who had sprained her ankle. He did not wait for dinner, drove off at once, spent an hour and a-half in a fruitless search for the Baroness and his drive to and fro, and next morning found that the Baron had walked off with five cases of instruments. The matter did not even end here; for the thief was caught, and the Surgeon bound over to prosecute. Dr. Green now said, very decidedly, that Medical men really should think of following the barrister's plan. He continued his visits. One Physician told him that so many persons went out of his room, or allowed him to leave theirs, without offering a fee, that he now made it an invariable rule to ask for one. He thought this a duty he owed to his younger professional brethren, but confessed it would not do for any one to act so whose position was not quite assured. He told the story of a deceased city Surgeon who adopted an ingenious plan. He had two bells. When he rang one the servant knew the fee was paid, and bowed the visitor out. When he rang the other, the servant said, "I think, Sir, you have forgotten to give Mr. Lock his fee;" and did not open the door till the fee was paid. "Dear me," thought Dr. Green to himself, "what a great deal of trouble and annoyance the barristers escape!" He said so to his friends, and they all agreed with him. Many said they had never overcome the feeling of awkwardness at taking a fee, especially from those who are friends as well as patients; and they knew that their patients felt equally uncomfortable in offering a fee to a gentleman; yet none of them had thought of any plan resembling that by which barristers save themselves from so much trouble, and loss both of money and dignity. Dr. Green told them they ought to think about it, and he went a little further. He thought it would be a good plan if some of the Physicians and Surgeons in the very first rank of their Profession imitated the barristers more closely, and only saw patients in consultation with a junior Practitioner, and for a double fee. Every one agreed with him. He was told that the only London Physician who ever refused to see patients under two guineas (Dr. Golding Bird in the last year of his life), had more than doubled his income by the plan, yet no one had followed the example. "Now," said Dr. Green, "I am quite sure that, if any leading man in our Profession acted as Cockburn and Thesiger do in theirs; if they would only see patients in consultation with younger men, and for a double fee; and, if this fee were paid to some clerk when the appointment for consultation was made, they would gain both in money and dignity." We quite agree with Dr. Green. What say our readers?

THE WEEK.

The subject to be discussed before the Hunterian Society on Wednesday next is one of very great importance, but which has not hitherto obtained from the Profession the attention that it deserves. Is it to be henceforth held as doctrine that a fœtus in utero possesses the power of conveying to its mother any peculiarities or morbid taints which it may have received from its father? Mr. Hutchinson investigates the subject only in relation to syphilis; and although, from the frequency of this disease, it is undoubtedly one of the most important, and also the one by which, perhaps, the doctrine is most easily proved and illustrated, yet the bearings of the law, should it be proved to be a law, by no means end here. The diatheses of gout, of rheumatism, of tuberculosis, may be, perhaps, communicable in the same way, if that of syphilis be so. An interesting illustration of its possible bearings on the communication of phthisis, was given in one of our communications last week. Dr. Leared there adduces seven cases of supposed *direct* contagion of phthisis. Four of these are made of little value by the circumstance that there was direct hereditary predisposition; and it is remarkable, that the whole of the remainder were married women whose husbands had died of the disease. Further confirmatory of the theory of contagion *by pregnancy* is the fact mentioned in one of these cases, that a child had also died of the disease. The discussion at the Hunterian Society is looked forward to with much interest, and we trust that the very important questions which it involves will receive a thorough investigation.

The Pathological Society will commence its labours for the Session on Tuesday next. The volume of Transactions for the last year is issued to-day, and we shall take an early opportunity of noticing it. We need not invite the members of this invaluable Society to any increase of zeal, but trust they will keep well up to the high standard they have hitherto maintained. Its Transactions are certainly among the very best of the contributions to the science of the Profession which each year produces. We are sorry to know, that, in order to sustain them at their present excellence (with regard to illustrations, etc.), an increase in funds will be requisite. On this point the members should bestir themselves to procure new names. In every new member so obtained they may feel certain they have effected a double good—conferred a great benefit upon the individual, and done something for the advancement of science.

Dr. Budd, of Plymouth, has actually obtained a court of inquiry against a real life captain who had treated him in an ungentlemanly manner. We have gone over the whole of the evidence, and while we are bound to admit that there were faults on both sides, it is satisfactory to see that the judgment of the Admiralty has been to a certain extent in Dr. Budd's favour, as their Lordships "express their regret at the occurrence," writing to Captain Nias a reproof, though a very mild one, regretting that he did not treat Dr. Budd "with that courtesy with which my lords, nevertheless, believe it is your habit, as well as your intention, to treat anybody who may address you." This is little enough, but it is something. It was fortunate, however, that the doctor was a civilian. Had he been in the Naval Service, he would, in all probability, have been treated in a very different manner.

We alluded last week to the forced retirement of Mr. Millar from his post at the Bucks County Asylum. This day we publish a letter from a gentleman intimately acquainted with all the circumstances of the case, and it certainly appears that it is one which calls for the interference of the Commis-

sioners of Lunacy. No small majority of a local board must be permitted to oppress a member of our Profession with impunity.

The extracts we publish in another column from the first annual report of Dr. Letheby on the Health of the City of London, are worthy of attentive perusal. The whole document is a very creditable one, and the author need not fear a comparison with the able productions of his predecessor. Indeed, remembering the class of men to whom the report is addressed, Dr. Letheby's is, perhaps, more likely to be useful than the metaphorical effusions of Mr. Simon.

Poisoning, criminal or accidental, is now more than a daily occurrence in this kingdom, yet nothing is done to check the reckless sale of poisons. The poisonings of this week are those of a child by its parents with sulphuric acid, and an attempt to poison four witnesses at Worcester by forty-five grains of opium procured at a druggist's without difficulty. Poisons are kept in every druggist's shop, and sold to any one who says he wishes to kill rats or poison a dog, without inquiry or caution; or, too frequently, the poison is dealt out by an ignorant shop-boy, or drunken master, by mistake. The evil has become intolerable, and must be checked. Will no one come forward with a short, plain, common-sense bill, to be ready for the meeting of Parliament? A good one could be drawn up in half-an-hour. All that is necessary is, to give a list of substances the sale of which is to be restricted to persons who have obtained a licence to sell them. The number of such persons might possibly be limited in certain localities, without raising the constitutional question of monopolies; but, however this might be, all who held the licence could be made to submit to certain rules, such as keeping a book in which all poison sold should be entered, and refusing to sell to any one unaccompanied by a friend, who would corroborate any statement made as to the purpose to which the poison was to be applied. A suggestion has been made that a Commissioner should be appointed to carry some such Act into operation; but we see no reason why it should not be left to the Board of Health, and, as we hope to see the day when every district in the kingdom will have its Medical Officer of Health, these officers might be entrusted with the power of granting licences to sell poisons in their districts. However, these are matters of detail. The principle we have to establish is, the restriction of the sale of poisons to persons legally authorized to sell them. Why have we no more Medical men in Parliament to look after the health of the State? Why are all the great questions of State medicine to be settled by political philanthropists, amateur homœopathists, briefless barristers, and crotchety engineers?

Every week the results of the labours of the Medical Officers of Health are becoming better known, and more useful to the public. This week we have to notice the appearance of the report on the Water used in the parish of St. George, Hanover-square, by Dr. Druitt, who has caused analyses to be made of the water supplied to the houses in that parish by the Grand Junction Company, and of that obtained at twenty-two pumps and springs in the district. The water supplied by the Company is reported as extremely good. That of most of the pumps is also recommended as brisk, palatable, and cooler than that of the Grand Junction by 10 or 12 degrees. It contains nitric acid, and more or less solid matters; but, as a general rule, it keeps well, and does not putrefy, even if kept in a warm place, after boiling. Dr. Druitt says, very reasonably, "if water will stand these two tests there can be no great harm in it." The use of these local investigations is made manifest by the fact that the water of two pumps in the same square differ very remarkably. Speaking of the pump at the bottom of Hanover-square, opposite Hanover-street, Dr. Druitt says:—"The waters of this became suddenly muddy after the storm of the 15th of July. Moreover, when opened and cleansed by Mr. Richman, to whom I reported this fact, there was found in it a large quantity of black mud, of very offensive smell. This mud, kept with some of the water in a warm place, has developed vegetables, and particularly insects, which can only have come from the surface. Now, as the well in Hanover-square, opposite Princes-street, was opened at the same time, and as the clay at the bottom of it was of a different colour and free from smell, and has developed no organic life, though kept under precisely the same circumstances as that from the other well, I believe the well opposite Hanover-street to be exposed to some source of admixture, and that, for the present, it should be kept well pumped out, but not be used for drinking." The whole of this report well deserves the attention of the inhabitants of the district. We should be glad to see more of the same kind, equally distinguished for original observation and common-sense.

Another case of alleged death from chloroform has occurred this week. An inquest was held on Wednesday at St. Thomas's Hospital, when it appeared that a man had been subjected to the action of chloroform preparatory to undergoing amputation of a finger. Mr. Fowler, the House-Surgeon, and a Mr. George appear to have had the sole management of the case, neither of the Surgeons of the Hospital having been present. As the inquest has been adjourned for the attendance of one of the Surgeons, we shall defer any remarks until the conclusion of the inquiry.

The enemies of local representative self-government must rejoice in the discussions of the Metropolitan Board of Works on the Sewerage question. Resolution after resolution is proposed and thrown over. Amendment after amendment is brought forward, and negatived; but nothing like a great leading principle is accepted as the basis on which their engineer is to make his plans. There is nothing like an earnest endeavour to free the Thames from pollution, and to utilise the "town guano." Indeed, at the meeting on Wednesday, the question was not how we were to purify our river and enrich our soil, but whether a vast cesspool as large as Soho-square was to be created at Long Reach, or Sea-Reach. This will never do.

The tables we publish this week among our hospital reports are important, as they show the result of all the cases of amputation, compound fracture, and operations for hernia, in St. George's Hospital for the year 1854. The tables for 1852 and 1853 will be found in our numbers for November 19, 1853, and July 15, 1854. A comparison of the death-rates for the three years is most interesting. It leads at once to the questions, Why is pyæmia so much on the increase? Is it from any cause in the sanitary condition of our Hospitals which can be removed? We trust that the suggestions of Mr. Holmes in his remarks introductory to the tables will meet with the attention they so well deserve.

Much dissatisfaction is expressed by the Apothecaries' Company of Dublin, and by the Association of General Medical Practitioners of Ireland, in reference to the Supplement to the Pharmacopœia of 1850, recently issued by the King and Queen's College of Physicians. It is contended, that the directions contained therein are unnecessary and impracticable; that sufficient precautions against the possible occurrence of accidental poisoning are taken by all regularly-educated Apothecaries; that the instances of fatal mistakes with

poisons which lately occurred in Ireland did not take place in the hands of persons duly qualified to practise Pharmacy; and that the Council of the Hall, to whom the management of the Profession is entrusted by an Act (31 Geo. III. cap. 34, of the Irish Parliament) of much more recent date than that quoted by the College, have already issued stringent directions to their Licentiates with respect to the careful keeping and dispensing of powerful medicines.

The case against the City Gas-works is progressing. Householders and other persons living in the neighbourhood have given evidence this week, that they themselves, their wives, members of their family, and friends, have been made sick by the offensive effluvia proceeding from the Gas-works. One speaks of general depression and violent headache, another of loss of appetite. The children complain of a "nasty sort of depressed headache." People won't take lodgings because the "blue peter" floats past the windows. The houses must be shut up to keep out the stench and the "peculiar nausea" and "suffocating sensations" produced; but of course the Company will prove that all this, so far from being a nuisance, is rather agreeable and wholesome.

A vessel has lately arrived from Greenland, at Copenhagen, with a cargo of a mineral called cryolite, which contains sodium, fluorine, and aluminium. A process has been discovered by which aluminium can be obtained from cryolite at as low a price per ounce as silver; but as an ounce of aluminium has three times the volume of an ounce of silver, it becomes really two-thirds cheaper. In an interview we recently had with one of the firm of Rousseau, who have obtained a patent for a process of obtaining aluminium from clay, this gentleman informed us that he had little doubt of being able to obtain the metal at as low a price as iron. Thus, in a few years we may be carried across the ocean in ships of aluminium, our bells and musical instruments, all our cooking utensils, and an immense number of articles of daily use and ornament, will, in all probability, be made of this light, beautiful, indestructible product of clay.

REVIEWS.

On Some Points in the Anatomy of the Liver of Man and Vertebrate Animals, with Directions for Injecting the Hepatic Ducts and Making Preparations. By Lionel S. Beale, M.B., etc. 8vo, pp. 80. London. 1856.

As the basis of the work before us is formed by the Lectures of the author published recently in this Journal, we need say nothing in praise of its subject-matter, especially as the book has claims of another order upon the attention of the Profession. It is the first Medical work illustrated by photographs, and is, therefore, interesting not only in the annals of Medical publishing, but in the history of the rise and progress of photography. Dr. Beale modestly begs indulgence for the imperfection of some of the photographs in the volume; and there can be no doubt that if they had been taken from careful drawings, or, perhaps, from some of the objects themselves, they would have been superior to those taken from mere diagrams; but, on the whole, they must be regarded as very creditable specimens of the work of a young photographer, and excellent illustrations of the views of the author upon the structure of the liver. Dr. Beale states, that the cost of 100 copies of each page was 2s. 4d., exclusive of labour, and that one person can finish from 100 to 150 each day by the ordinary positive process. With further advance in the art we shall doubtless see photography becoming more and more useful in its application to the illustration of scientific works, and we think Dr. Beale deserves very great credit for taking the lead, and pointing out what may be done by those who follow his example. His book should be bought not only by those interested in minute anatomical researches, but by the much more numerous class of photographic amateurs and artists.

The Chemistry of Food and Diet, with a chapter on Food Adulterations; being one of the volumes of Orr's Circle of the Sciences. Pp. 124. London. 1856.

The former part of this little work is a translation by Dr. Bronner, of the "Lehre der Nahrungs Mittel, fre das Volk" of Professor Moleschott, of Zürich; and the chapter on Food Adulterations is by Mr. Scoffern, of London. The treatise on the Chemistry of Food and Diet is divided into three chapters; the first of which is devoted to the Physiology of digestion; the second to the chemical history of the different kinds of food and drink in common use; and the third contains practical suggestions upon the diet adapted respectively to the different classes of the human race. Professor Moleschott exhibits in the treatment of all these subjects, the cultivated powers of an experienced physiologist and chemist; and although many of his remarks are peculiarly applicable to German life and manners, yet they will be found useful and interesting to the inhabitants of every country. This writer considers that alcoholic fluids taken in moderation are useful rather than injurious, by saving the fat and albumen of the body from combustion, and by directly assisting the digestive process. Rules are laid down for the diet not only of men, women, and children, but also of the artisan, the artist, and the literary man, and although some of the author's ideas are somewhat fanciful and *Germanic*, they will be read with interest. The diet of the sick is not touched upon, as it does not fall within the scope of the work, which is of a popular nature. Mr. Scoffern, in the chapter on Food Adulterations, has availed himself of the information already published upon the subject and has added some judicious remarks of his own. On the whole, we consider that this volume contains much useful information.

A Popular Treatise on the Warming and Ventilation of Buildings: Showing the Advantage of the Improved System of Heated Water Circulation. By Charles James Richardson. Third Edition. Pp. 115. London: 1856.

The object of this little work is to explain the nature of Mr. Perkins's improved method of warming houses, and other buildings, by means of pipes containing hot water. The different adaptations of this plan to various circumstances are shown in a series of seventeen plates, in which are depicted the modifications of the apparatus used in several large edifices, as the Soane Museum, the third Criminal Court of the Old Bailey, the Justice Room at the Mansion House, etc. The author establishes the fact (which was, however, previously very generally acknowledged) that most of our modern systems of warming and ventilation are very defective; and he urges the superiority of the system of heating by hot water, in maintaining an equable temperature in a climate proverbially changeable, like that of England. In a Medical point of view, he points out the great advantage of a uniform temperature to the pulmonary invalid, and he argues that many of those cases which are sent abroad, in the hope of recovery, but really to perish, might derive greater benefit by remaining at home in the care of friends and relatives, and surrounded by other home-associations; provided only that the inequality of temperature in our houses, now so pernicious, could be obviated. In this view we believe that many practical physicians will agree, and we are disposed to think favourably of the plan of warming our buildings which is advocated and explained in the present volume.

Photographic Portraits of Living Celebrities. Executed by Maull and Polyblank. No. 5. September, 1856.

The fifth number of Messrs. Maull and Polyblank's portraits contains an admirable likeness of Sir Benjamin Brodie. Those of our readers who would wish to possess a likeness of the great Surgeon—and who would not?—could not expend five shillings better than in purchasing that before us. It is an excellent specimen of the present state of the art of photography in its application to portraits. Very little, however, can be said in praise of Mr. Walford's "Biographical Notice."

The Queen's University in Ireland.—It is, we understand, intended that the Examinations in the above University shall be held, and the degrees conferred, at an earlier period in future years than has hitherto been the case, the lateness of the time heretofore set apart for those purposes, in the months of September and October, being productive of inconvenience.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON NEUROSIS OF THE LACHRYMAL NERVE.

This affection, M. Tavignot believes, is far from being rare, and is often mistaken for disease of the lachrymal passages. It is more frequently met with in women than in men, and usually exists but on one side, a chronic weeping having prevailed, perhaps, for months or years without exciting much attention. This is, indeed, not continuous, and is increased in damp and windy weather, under a bright light, and by much occupation of the eye on minute objects. The cheek and conjunctiva become irritated, winking is frequent, and the eye is too sensitive to light. We have first to determine whether the excess of tears proceeds from an obstruction to their normal course, or is due to hypersecretion of the lachrymal gland. A careful examination of the passages must be made; but one source of error must be guarded against. The lower lachrymal point not unfrequently deviates very sensibly inwards in cases of nervous epiphora, and to such deviation the excess of tears has been attributed; but the deviation is almost always consecutive to the weeping, and results from a kind of œdema, or swelling, of the lower eyelid, kept in contact with the tears. Moreover, if but one of the *puncta* act efficiently, that is enough to conduct away all the product of the normal secretion. Finding no defect in the passages, we must turn our attention to the lachrymal gland itself. Its hypersecretion must be regarded as merely symptomatic, when any chronic lesion of the eye, as keratitis, is present. In the absence of such it may be considered as idiopathic; and, in the author's opinion, its nature is nervous. It should, in fact, be regarded as a partial ciliary neuropathy, which is connected, in the great majority of cases, with either remote or proximate, anterior or co-existing, disordered conditions of the lachrymal nerve. All the cases that have come under his care, have occurred in subjects of the lymphatico-nervous or nervoso-chlorotic constitution, and have manifested other nervous symptoms, or have shown themselves in ill-fed persons, compelled to excessive employment of the eyes upon minute objects.

Nervous epiphora may last for years, and may disappear for months to recur as bad as ever. In its obstinate resistance to treatment it offers an analogy with the affections of other branches of the fifth pair. The treatment must be general as well as local, the former consisting in the employment of iron united with belladonna, and of all means calculated to improve the hygienic conditions. The local treatment consists in the use of belladonna frictions, every night, near the angle of the eye, extending over the temple and a portion of the forehead. At a later period, a collyrium, consisting of 4 parts of extract of belladonna, in 125 of a vehicle, may be prescribed, taking care to apprise the patient of the confusion of vision that will ensue upon its employment; or we may employ a collyrium formed of 1 part of laudanum to 125 parts of water, applying a Janin's plaster at the same time to the temple, allowing it to remain on for eight or ten days, and repeating it once or twice if necessary. The eyes should also be rested, and coloured glasses should be worn, in order to defend them from the air and light. Finally, in cases of old, obstinate, nervous epiphora, obliging the patient to interrupt or suspend the employment of the eyes, there is but one mode of effectual relief, viz., the ablation of the lachrymal gland, which is a very simple operation, and one, as M. Tavignot has shown in former writings,(a) not liable to be followed by ill consequences.—*Moniteur des Hôpitaux.* No. XXX.

ON INTERMITTENT RHEUMATIC CONTRACTIONS.

By Professor TROUSSEAU.

Previously to the year 1845, M. Trousseau believed that this affection was confined to nurses; but since then he has met with it in men, non-puerperal women, and children. He divides it into three forms.

1. *Benign Form.*—This is seen only in women. The patient complains of prickling of the feet and hands, and some difficulty in the movements of the fingers and toes. The fingers then become stiffened and drawn forcibly together; the thumb is brought into strong adduction, and the fingers becoming somewhat folded around it, the hand assumes the form of one holding a pen, or still better, of that of the accoucheur. The hand becomes concave, and the transverse diameter of its metacarpal portion is diminished. The spasm is accompanied by hardness of the arm and forearm. It comes and goes. Sometimes one of the upper, sometimes one of the lower extremities is affected, sometimes both of either, and sometimes all the extremities are so simultaneously. But with all this there is little pain and no general symptoms, so that the patient pays little attention to the affection.

2. *Medium Form.*—Besides these local symptoms, we have here slight febrile action which lasts for 7 or 8 days. There is loss of appetite, and *malaise*, but nothing serious. The contractions give rise to more pain, and recur oftener, invading the muscles of the face and pharynx, and the motors of the eye. Sometimes those of the tongue are involved, and the patient is unable to speak; but generally this is not the case at the same time that the hands and feet are the seat of the contraction. The fingers are always curved up.

3. *Grave Form.*—A young man, aged 18, was recently brought to the Hôtel-Dieu. Seized suddenly, he had fallen to the ground in a state of tetanic rigidity, the muscles of the neck, chest, and abdomen acting convulsively and curving the trunk forwards. After awhile, great distress of respiration came on, an attack of true orthopnœa, but of short duration. The face was flushed, the lips were violet, and the jugulars swollen. M. Trousseau saw several of these paroxysms, all characterized by a horrible vehemence, resembling, in all respects, an attack of tetanus. No sooner had they passed off than the patient spoke with some cheerfulness, though expressing himself with difficulty. In the intervals of these attacks he was quite well, and assisted in the duties of the ward.

Generally, when the accident commences, a patient complains of prickling in the arm, and the hand becomes curved like that of a beggar. The arm is stiffened, and a severe pain like a cramp is felt, the attack not reaching its maximum of intensity for ten or fifteen minutes, by which time all the parts attacked have become invaded. The affection is distinguished by its migratory character, short duration, and by its being accompanied with moderate febrile symptoms in the mild form, and by very violent pyrexia in the severe form. When a patient has not experienced a paroxysm for twenty-four, or even sixty, or a hundred hours, it may always be reproduced by compression of the nervous trunks. M. Trousseau first observed this when, being about to bleed the patient, an attack was induced by applying the fillet to the arm, and this was found to be always repeated upon whichever of the limbs the ligature was applied. This is an important point in diagnosis; as by compression of the nerves, as the brachial plexus, etc., the paroxysms are always producible.

Rheumatic contraction comes on suddenly, rapidly attains a considerable intensity, reaches its maximum and then declines—the period of its entire duration varying from eight or ten days to two or three months. In the latter case it is in its latent condition, *i.e.*, reproducible at will by compression of the nervous trunks. Among other causes, a violent diarrhœa may predispose to it, and during the cholera of '54, a considerable number of cases occurred. Exposure to atmospheric vicissitudes is another not infrequent cause; but the one which is most frequent and most active, is the condition of suckling. In the 12 beds M. Trousseau has at the Hôtel Dieu for nurses, he meets with a far larger proportion of cases than in the 50 other beds for females. At the Necker Hospital, his female wards contained 36 beds for nursing women, and 40 beds for non-nursing women, and while in the former he observed 40 cases, he had only 1 in the latter.

The disease when left to itself seems devoid of danger, the febrile action alone disturbing the functions of organic life. There is, therefore, no fear for the result. Still, in some examples of the grave form, the contractions become so violent as to call for very active procedures. Persons unaware of the nature of the affection might readily, from the apparent severity of the accidents, be induced to believe them symptomatic of very grave pathological states; but the mobility and fugacity of these symptoms show that they are not dependent on serious permanent organic lesions. During the 15 years that M. Trousseau's attention has been directed to these cases, he has never met with a fatal one.

It is evident that the affection is a neurosis, and it may be

(a) See Brit. and For. Med. Chi. Rev., April, 1856, p. 548.

ranged side by side with epilepsy, hysteria, eclampsia, and catalepsy, and is unaccompanied by any serious lesion of brain or spinal cord. In M. Trousseau's opinion, it is also rheumatic in its nature; its great fugacity, the suddenness of the attack, and the superficiality of its symptoms, leading him to this conclusion. Moreover, blood drawn presents the buffy coat as in rheumatism, and symptoms of rheumatism have in some cases alternated with the contractions.

When M. Trousseau first met with these cases, believing them to be serious affections of the brain or spinal cord, he resorted to bleeding and to cupping along the spine. These means did undoubtedly good service, and he believes bleeding a powerful agent when the general condition does not contra-indicate its employment. The intermittent character of the affection led to the employment of quinine, and it was found useful, although patients become less certainly cured than by venesection. During the paroxysms, the inhalation of chloroform is sometimes of some use, for although the contractions only temporarily cease, some relief is obtained. Opium and belladonna, in moderate doses, are also of use; but bleeding and the employment of quinine, are the means that hold the first place.—*Gaz. des Hôp.* No. LXXII.

GENERAL CORRESPONDENCE.

MR. MILLAR AND THE BUCKS COUNTY ASYLUM COMMITTEE.

[To the Editor of the Medical Times and Gazette.]

Sir,—The treatment of Mr. Millar, the Superintendent of the Bucks County Asylum, by the Managing Committee of that Institution, is so flagrant an injustice, that I think it deserves more notice than you were able to give it last week. The facts you then related remain unaltered. The time draws nearer for Mr. Millar's forced resignment of his duties into the hands of another superintendent, and yet no word of explanation from the committee has been spoken.

I have a letter of Mr. Millar's, in which the proceedings of the Committee are described at length, and in which the injustice to which he is subjected is commented on in the most temperate and reasonable terms; and I am enabled to state that every syllable of Mr. Millar's letter is correct; that nothing is exaggerated, nor aught set down in malice.

The following is the history of the meeting, at which Mr. Millar received his *ultimatum*.

At an ordinary monthly meeting of the Committee, held at the Asylum on the 15th of last August, a statement was made, without notice, by a Member of the Committee, who had never been round the Asylum, who had not had any conversation with the superintendent respecting its management, and who had only been six months on the Committee. This statement led to the adoption of an abstract resolution to alter the duties of the chief officers. Mr. Millar was then called in, and the resolution was read to him, to which he offered no objection; and he was unexpectedly asked a few questions by the same Member of the Committee, with reference to certain matters; but without knowing what object was in view. Portions of the answers were taken down, and after a very short deliberation in his absence, he (Mr. Millar) was summarily told "that the Committee had no confidence in his management of the Asylum." This was the first and only occasion on which he had, either publicly or privately, the most remote intimation of the existence of the slightest feeling of dissatisfaction. In proof of which the Minutes of the Committee, and the "Visitors' Book," in which is recorded the result of the weekly visits of the Committee, together with the Reports of the Commissioners in Lunacy are distinct evidence. Neither of these contain a single remark otherwise than satisfactory. Mr. Millar asked the Committee if their want of confidence was based upon the replies just taken down, and the answer was, "Yes, chiefly." He requested that they would refer them to the Commissioners in Lunacy, but this they declined to do; and after an intimation that they could no longer sit as a board if he continued in office, he felt compelled by the hostile feeling displayed by the Committee, to tender his resignation.

A few days afterwards, lest his voluntary resignation should be used as a plea to bar further investigation, he addressed the following note to the Committee:—"Gentlemen, on consideration, I beg to withdraw my hastily-tendered resignation of Friday last. I am, &c., John Millar."

At the special meeting referred to, his fuller statement was read, and the subject of his resignation discussed in his absence. About the conclusion of the meeting, the clerk came to him by order of the Committee, to say that they had confirmed his verbal resignation of the 15th, and refused to allow him to withdraw it (there was a majority of two against him); at the same time he was requested voluntarily to withdraw the above note, in order that the Committee might be able to give him a character. This offer was respectfully and firmly declined, and therefore in the course of the evening of the 29th he had an official intimation of a resolution of the Committee, that he was to be removed from his office that day three months, though by their previous resolution his period of service would legally have closed when three months had elapsed after the date of his resignation.

As regards the questions, on the answers to which the vote of want of confidence was mainly based, these, the questions, are so frivolous, and imply such a doltish ignorance of matters relating to the management of Asylums, that they deserve but little notice. In fact, it is difficult to conceive that they were put for any reason than that of getting up a *casus belli*. Marshal O'Donnell's manœuvre to originate a quarrel with his colleagues at any cost was, in fact, not more happy. The questions were: Whether the matron or head-attendant could, at a push, order extras? whether the key of the shower-bath was kept in the surgery, and whether the head-attendant had access to it? how much water the cisterns of the shower-baths held, how long they take to empty, how long to refill? whether the head-attendant had access to the female side after ten at night? whether B., a patient, was ordered to be locked up for refusing to work in Mr. Reade's garden? why M. C., an attendant, was dismissed the Asylum? had the matron Mr. Millar's child with her ever in her room, and was said child allowed to go with her through the galleries? whether Neil Sutherland, the head-attendant, had a character from his last place?

These were the inquiries. It is sufficient to say that, while some of them are positively so imbecile that they would seem rather to have come from a more permanent resident of the Asylum than a visitor, all of them which have any weight had the most conclusive and satisfactory answers. The head attendant had not, to the knowledge of Mr. Millar, access to the female side after 10 at night. The patient who refused to work in Mr. Reade's garden was locked up, not because he refused to work, for he was working in Mr. Millar's garden at the time, but because he was excited and violent. The girl who was dismissed from the Asylum was dismissed because she was a falsehood-telling, disturbance-making servant, and inattentive withal to her duties. The character of the head-attendant which Mr. Millar had from Dr. Campbell, of the Essex Lunatic Asylum at Brentford, the man's last master, was such as fully to justify any one for taking the man into office.

You referred last week to the fact that the visitors to the Asylum and the Commissioners in Lunacy always expressed themselves in the highest terms of commendation regarding the management of the Asylum; and these commendations are fully sustained by the Annual Reports, which are satisfactory and masterly documents. I am, &c.

A Physician.

A NEW FORM OF RETRACTOR.

[To the Editor of the Medical Times and Gazette.]

Sir,—I was greatly astonished at the letter on this subject in your last. When I called firston Mr. Bigg, the words with which he put his instrument into my hands were—"It is exactly like the one described, *excepting that it has no handle*, and that, you know, is of no importance,"—or words to that effect. I quickly demonstrated to him that the movable handle was a most essential part of the instrument, and, in fact, the only point in which it differed from a long bent director. The result has been, that his director, we are now informed, possesses a handle of some length. The only possible way to end this correspondence will be for Mr. Bigg to figure his instrument in your pages, and leave it to the perceptions of your readers to say whether it is the same as that described by me.

I was no less amused by the repetition of the statement

respecting Butcher's saw, since, in the conversation alluded to, I succeeded (with much trouble, I admit) in getting your correspondent to perceive, and *also to admit*, that it would be impracticable to put the saw-blade under the shaft of a long bone, unless the soft parts were depressed below the level of the said shaft. I am, &c.

THE DESCRIBER OF A NEW FORM OF RETRACTOR.

[If Mr. Bigg will send us a wood-cut of his instrument, it shall have insertion.—ED.]

DETECTION OF THE SQUINTING EYE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the last number of your Journal Mr. Walton does me the honour of noticing a paper of mine published in the *Medical Times and Gazette* of June 28, 1856, and entitled, "The Condition of Vision the Best Test of the Squinting Eye." In that paper I proved by quotations from the works of the (then) three latest English writers on Ophthalmic Surgery, first, that none of them laid down the same rules for the detection of the squinting eye in doubtful cases; secondly, and inferentially, that there was no uniform recognized test; and, thirdly, I pointed out that the condition of vision of squinters furnished us with such a test, and was the only one that could be depended on under these circumstances.

Mr. Walton in his paper purposes to show that the test I proposed "does not possess the value claimed for it," and the facts he brings forward to substantiate this position are two. First, he says, "there may be equal vision in the eyes," and then some other method must be resorted to for discoveriug the faulty organ. In reply to this I have simply to observe, that in these cases (which, by the way, are extremely rare) both eyes are equally implicated, and therefore no test whatever is necessary.

A single or a double operation may be required, according to circumstances, which it would be foreign to my present purpose to speak of; but in the former case the result will be the same whichever eye be operated on.

The other fact on which Mr. Walton relies for substantiating his position is one which he informs your readers he has "recently observed," viz., that the squinting or bad eye as regards position may be the good one as regards sight, and *vice versâ;* and he gives the following case in illustration:—"I was consulted by a gentleman, 32 years old, who desired, if I should see fit, to be operated on for squint. There was a little difficulty, while merely looking at him, in telling which was the squinting eye, but I thought the left to be the one affected; and when I asked, as I always do, and as I have been in the habit of asking for years, 'With which do you see the better, because the defective eye is generally that which squints?' and was told, 'With the left,' I proceeded to examine the eyes with care, and came to the conclusion that the left only was inverted. My colleague, Mr. Taylor, examined the case, and came to the same conclusion. Like myself, too, he found that with the left eye there was a greater focal range, and better sight. With his assistance I operated, and a more satisfactory result was never witnessed by either of us. It is evident, therefore, that had I allowed the state of vision to be my guide, and discarded my usual test, I should have maltreated my patient."

Mr. Walton evidently regards this case as furnishing a triumphant proof of the worthlessness of my test; but before he congratulates himself on his victory, I think he is bound to show that I maltreated my patient by allowing the state of vision to be my guide, and I therefore now ask him for an explanation of the success of my operation on the young Greek lady.

This case appears to have resembled in every particular that of Mr. Walton—both patients squinted, apparently with the left eye, and in both, vision with this eye was more perfect than with the other; yet Mr. Walton operated on the left eye of his patient, and I on the right of mine, and as regards the removal of the deformity, with an equally satisfactory result. A word in conclusion. In the paper of Mr. Walton occurs the following passage, "When Mr. Holthouse has a little more experience added to his 'abundant opportunities,' he will find that with squint there may be equal vision in the eyes," etc.

Had Mr. Walton read my paper more attentively he would have found this fact recognised in the following words, "In true alternating squint, where the power of the two eyes is alike, it is immaterial which eye is operated on," etc.; and if he turn to page 43, of my "Lectures on Strabismus," published two years and a half ago, he will find this variety of squint described and illustrated. Had Mr. Walton confined himself to a fair statement of his objections to the test proposed, and not indulged in a sneering inuendo at my want of experience, he would have spared me the trouble of reminding him that experience is not to be measured by the number of cases that are seen, but by the way in which they are observed, and I feel assured that when Mr. Walton has gained "a little more experience" in this class of cases he will better appreciate the value of the test which I have recommended. In the case of the gentleman on whom Mr. Walton operated, this test indicated the right eye as the one proper for operation, and had he allowed it to be his guide a more satisfactory result would have ensued, even than that with which Mr. Walton is so well pleased; for his patient would not only have been cured of his deformity but of his defective vision.

I am, &c., C. HOLTHOUSE.

2, Storey's Gate, St. James' Park,
October 14, 1856.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

SATURDAY, OCT. 11, 1856.

DR. CHOWNE, President, in the Chair.

THE President, in opening the proceedings of the Session, expressed the pleasure which he felt at the recollection of the courteous manner in which the discussions had been conducted, and of the value of the communications which had been laid before the Society; hoping that the same courtesy would still be exhibited, and that papers would be always forthcoming from the members, of a character to uphold the position which the Society had attained. He remarked also with satisfaction on the recent appointment of officers of health, from which he said he anticipated great benefit, not only to the Medical Profession but to the community.

Mr. Hunt related the particulars of a case of idiopathic tetanus occurring in an infant aged seven months, not weaned, and previously healthy. The child was seized with convulsions, which were followed by opisthotonus; the jaw was locked; the eyes were staring, the pupils dilated, and insensible to light; and there was spasm of the glottis at every fifth or sixth inspiration; pulse quick and feeble. The child gradually sank, and death occurred twenty-four hours after the attack, during which period there was no intermission of the episthotonic spasm. On the post-mortem examination, twenty-four hours after death, the limbs were still rigid; there was but little blood in the sinuses; the dura-mater was not injected or abnormally adherent; arachnoid natural; on a horizontal section the substance of the brain appeared healthy. A quantity of yellow pus was found between the pia-mater and the arachnoid. In answer to Mr. Hancock, Mr. Hunt stated, that the upper part of the spinal cord was not examined.

Dr. Snow considered, that the stiffness of the limbs after death was only the usual post-mortem rigidity, not being connected with the spasm during life.

Dr. Ogier Ward exhibited a collection of uterine cysts which came away between the fourth and fifth month of pregnancy, and made some observations as to their mode of growth, on which he desired to elicit information from the members.

Dr. Willshire exhibited the kidney of a child, showing commencing "infarction" of the tubuli uriniferi by uric acid salts. It illustrated a point, he said, in the history of commencing extra-uterine life, which had been lately much discussed in Germany, but had been uninvestigated in England and France. Dr. Willshire believed that this was the first occasion the particular condition of the renal organs, now before the Society, had been publicly demonstrated. The present specimen was also interesting, from the fact that it formed the third which had been recorded of a necessarily small subgroup of examples in the general class of cases to which he alluded. It was taken from a child that had died *in partu*,

after having breathed, and went to show that renal infarction might, at least, commence in the living child after labour had begun, and previous to its entire separation from the maternal system. Hitherto 428 infants had been examined in connection with this question; of these, 113 were dead-born, and not one exhibited the renal infarctus; 206, living from one to 60 days, exhibited it; 2 dying during birth (the present being one), and one soon after the birth, showed the infarction commencing. The remainder presented no traces of it. Many points of much interest were connected with the subject, and not the least so the question as to how far the condition of the kidney he exhibited could be employed in a forensic argument in a case of suspected infanticide. Dr. Willshire stated that circumstances had occurred in connexion with the supra-renal capsules in the present case which led him to attach weight to the late statement of M. Brown-Séquard, that these organs have to do with pigment formation, and, consequently, to support some recent views of Dr. Addison.

Dr. Smiles exhibited the throat of a patient who died suddenly, in the effort to vomit after an epileptic attack, a quantity of food having forced its way into the larynx.

Dr. S. Griffith mentioned a similar case, in which a drunken man died of suffocation, produced by the presence of a piece of meat in the larynx, it having been forced thither during the act of vomiting.

Dr. Thudichum exhibited the heart and adjoining structures of a patient who died from the effects of two traumatic aneurisms of the aorta, immediately below the origin of the spermatic arteries, produced by a kick in the side and abdomen.

Dr. Chowne read an interesting paper

ON THE INFLUENCE OF ARTIFICIAL HEAT ON THE ATMOSPHERE OF LONDON;

from which the following paragraphs are extracted:—The well-known effects of clouds, in reflecting back the heat radiated to them from the earth and terrestrial objects, induced me to make some experiments on the subject. These experiments were made in the winter months, when the agents for producing artificial heat are in general operation. It might be easily imagined, that the vast amount of heat generated in the metropolis, and in all large manufacturing towns, by the use of furnaces, by domestic fires, by gas-lights, etc., must exercise considerable effect on the temperature of the atmosphere of these localities. During the year 1850, in order to ascertain the temperature of the London atmosphere on fine clear nights, when compared with that of moderately cloudy nights, as well as on intensely dark and clouded nights, when radiation would be most obstructed, a cylinder of three inches in diameter, and twelve inches long, was inserted vertically in the earth, and a thermometer was placed within it. The upper orifice of the cylinder, being just level with the ground, was covered by a piece of zinc plate, merely laid upon it; the lower extremity of the cylinder was closed by a disc of the same metal, and soldered. At the same time another thermometer was suspended, nearly over the cylinder, at the height of about ten inches from the ground and in the free air. The state of the sky was carefully examined during all the experiments. The same general fluctuations of temperature occurred, as have been observed within certain limits, by Mr. Wilson, Mr. Six, Dr. Wells, Melloni, and others; but on intensely cloudy nights, the quantity of heat reflected back by the clouds was sufficient to raise the temperature of the exposed thermometer to a higher degree than that indicated by the thermometer in the cylinder, and partaking directly of the earth's warmth. The experiments were made in one of the gardens at the back of Connaught-place, West, Hyde Park. Thus it is satisfactorily proved that on the moderately cloudy nights, when compared with those of the three fine nights (namely, the 27th, 28th, and 29th of November), the thermometers indicated the presence of reflected heat in a degree not differing from what might have occurred in the open country; but that on the densely cloudy nights, they indicated a degree of heat sensibly above what they could have derived from the earth's surface. Other thermometers were suspended at the same time in pairs; one of each pair was placed in a situation where it was more or less sheltered from the sky; the other was placed about two feet from it, and at the same height from the ground, but fully exposed to the sky. The result was that on the intensely dark and cloudy nights, the temperature of the exposed thermometers attained a higher degree than that attained by those that were sheltered. This occurred on the nights when it was found that the exposed thermometer already spoken of as being suspended near the ground, attained a higher temperature than that in the cylinder within the ground. Hence, although in ordinary circumstances the air under a shed is, during the night, warmer than the unsheltered air, yet on extremely over-east nights, the relative temperatures are reversed, and are rendered analogous to those which exist on sunny days, when thermometers exposed to the sun's rays indicate a higher temperature than those sheltered from them. Dr. Wells, when he had changed the place of his experiments on dew from the open country to Lincoln's-inn-fields, considered that the surrounding houses had an influence on his thermometers; he says, "in situations where large masses of bare solid matter exists," . . . "a greater heat will be received by the exposed body" than what is radiated by itself. For example, it seemed certain to me that the houses surrounding Lincoln's-inn-fields had an influence upon my thermometers during my experiments there at night, beyond what arose from their merely returning a quantity of heat, equivalent to that which they received from the surface of the garden." It does not appear that Dr. Wells attributed the various effects produced on his thermometers to any influence of artificial heat translated by processes of combustion from the earth to the clouds, and reflected by them back again; indeed, at the time when his experiments were made, two great sources of heat now in operation, the making and the burning of gas, had but a very limited existence. It may likewise be remarked that the consumption of gas for lights had added almost incalculably to the quantity of heat communicated to the open air. The experiments were repeated on nights more or less foggy, and the results were in accordance with what had been observed by the authorities already mentioned, namely, that fog does not exercise the same power as clouds in reflecting back the heat emitted by radiation or otherwise from the earth. Dr. Chowne then dwelt on the important inference which appeared to be deducible from the fact that so large a body of artificial heat can be thrown back upon terrestrial objects, a probable consequence being to augment the atmospheric capacity for holding aqueous vapours; and this circumstance renders the subject one of interest in regard to the atmosphere, not only in its physical relations generally, but also in its relations to our sewers, and the openings from them at the gratings in the streets. Although in a room where gas is burning the hygrometer (a) indicates a decrease of the difference of temperature between the dry bulb and the wet one, owing to the quantity of vapour generated by the process of combustion, yet the fact of such formation in the open air would but slightly interfere with the aggregate results of combustion going on by other means at the same time. The quantity of aqueous vapour supplied by the surface evaporation from the streets of London, except when they are wet with rain, or from other causes, is extremely small; and the same might be said of that from the surface of the Thames, when compared with the vast extent of the metropolis. The Thames, moreover, is remote from the great mass of the populous districts. On calm, still nights, when there is scarcely wind enough to move our atmosphere along; and when, moreover, there is the absence of rain, any increase of temperature, such as the experiments described show to take place, must have a powerful influence, not only on all the pneumatic relations existing between the open atmosphere and the atmospheres of dwelling-houses and of sewers, but also on the chemical relations affecting all dead and decomposing organized matters. This led the author to a consideration of the emanations from sewers under the atmospheric conditions just noticed, and which lead us to the general question of means and ends connected with sanitary improvements. Meteorological and physical phenomena in the grand operations of nature we cannot control, whether they affect us for good or for ill; but what belongs to the class of artificial operations might hereafter find a remedy; there is, however, very much to be changed before that can be brought about. The Author then referred successively to openings into the street as not fit places of escape for subterranean exhalations; the transmission of the atmosphere of the sewers by means of the house-drains into our houses. With regard

(a) Mason's.

to the temperature of the sewers, the Author had no opportunity of ascertaining the state of the case. On the intensely cloudy nights to which the experiments detailed in this paper refer, the inference, however, would be, that a strong analogy would be found in the results to the fact already recorded. The circumstances under which currents of air take place, and the direction of their movements, next came under consderation, and the Author proceeded to detail investigations carried on in respect to the direction of currents from gully-holes; but in respect to the data obtained, remarked that the results could not be fully explained without a better knowledge as to the pneumatic influences which particular parts of the sewers are under at the time of making the trial. With regard to dwelling-houses, the Author had ascertained, in very many instances, that great quantities of foul air passed from the sewers to their interiors, steadily and constantly contaminating the atmosphere of the house, although generally the admitted effluvia, owing to its being diluted by the atmosphere of the house, does not betray its presence by a strong odour. Dr. Chowne concluded by remarking that the bearing of these experiments was to show that the condition of the atmosphere, produced by the various sources of artificial heat referred to, could not fail to have a powerful influence, not only on the sanitary state of the Metropolis, but also of all large manufacturing towns.

Dr. Ogier Ward remarked on the difference of temperature in the day and at night in London as compared with the country. In some experiments he had made, he found that when the difference in London was 14·14°, in Shrewsbury it was as much as 32·7°. In London the difference was highest in spring, and diminishing in summer, and least in the winter; in Shrewsbury it was highest in summer, and less in the spring and autumn, and lowest in winter. The attics in London were more subject to the variations of temperature than the lower storeys.

Dr. James Bird alluded to the influence produced on the temperature of London by the artificial watering of the streets, by which an artificial vapour was produced, tending to increase the temperature.

Dr. E. Smith said the watering of the streets in summer must tend to lower the temperature, and thus (as he had found by some experiments made at the Hospital for Consumption) to promote respiration, and diminish the amount of pulsation, and so bring about a much more healthy condition. The evolution of carbonic acid gas proceeded more rapidly in a moderately warm and moist, than in a very cold or hot atmosphere; and on this account he regarded the artificial watering of the streets as a beneficial operation.

Dr. Thudichum adverted to the importance of conveying foul currents of air from the drains to the tops of the houses, without allowing them to escape in the lower parts.

Mr. Hunt thought this might be effected by connecting all the spouts (employed to convey water from the roofs) with the drains: in this way he said each spout would serve the double purpose of carrying the water down, and, as a ventilator, carrying the foul air up, where it would be dissipated, and rendered almost harmless. The traps in the houses of the poor were, for various reasons which he specified, all but useless; but he believed a new kind of trap had been invented, which would, probably, be much more effectual.

Dr. Theophilus Thomson thought there could not be much difference between the London and the country cloud, as to their effect on the temperature, since they were so continually changing by the currents of air.

Dr. Webster remarked on the reduction of temperature on cloudless and starry nights. More deaths, he said, took place a little before sunrise than at any other period, and at this time the temperature was at the lowest point. With regard to the conveyance of the foul air upwards, through the water-spouts, it ought first to be ascertained that the air so conveyed was of less specific gravity than the atmosphere, for if it was heavier it would fall downwards, and be distributed all over the upper parts of the houses.

The President then replied, and the Society adjourned.

HEALTH OF THE CITY.

EXTRACTS FROM DR. LETHEBY'S REPORT.

"You will perceive by the first of them that the total mortality of the year is 2·910. This number is 490, or nearly 70, per cent., less than the average of the last eight years. In fact, the death rate of the whole city has been reduced from a general average of 24 per 1000 of the inhabitants to 22. On looking at the death rates of the several districts and sub-districts of the territory over which you have jurisdiction it will be seen that their proportions differ in a very remarkable manner, and that they have contributed very unequally towards the general aggregate; for, while the total mortality of the whole city is at the rate of 24 per 1000 of the inhabitants, that of the several sub-divisions is from 15 to 30 in the 1000. In the City of London Union, for example, the mortality has been from 15 to 19 in the 1000, and in that division of the metropolis which forms the eastern part of the city the number of deaths has been from 22 to 28 in the 1000, and worse still in one of the most densely crowded of all the metropolitan sub-districts—namely, the southern part of the West London Union, the mortality his risen to 30 in the 1000. . . . . It is necessary to examine the returns of those districts where the population is more firmly fixed to their homes. Such localities are common enough in both the eastern and western divisions of the city, and there, as might be expected, the death rate rises to from 50 to 60 per cent., over that of the central divisions, and from 20 to 30 over that of all England. . . . . Of a total annual mortality of 2910 as many as 1119 perished before they had reached the fifth year of their age. This is at the rate of 38 per cent. of all the deaths. It ranges, however, in the different districts of the city from 30 to 40 per cent., and, as you might suppose, the infant mortality is greatest in the crowded alleys and courts of the eastern and western unions. In all England the mortality of children under 5 years of age is as nearly as possible 39 per cent. of all the deaths. This is apparently a larger proportion than occurs in the city of London; and, as in the last case, without due consideration, it might be made the ground of a false opinion as to the state of the public health, let us therefore examine the facts a little more closely. London, as you know, is not the nursery of its population. Few comparatively of those who live and labour away among you are citizens by birth. The great bulk of your population has entered upon a London career after having passed the perils of infancy elsewhere; indeed, your city is ever receiving fresh accessions of vigorous life in the very prime of youth. This relieves the metropolis from a weight of infant mortality that would otherwise press heavily upon it, and to learn, therefore, how great is the death rate of your infant population, you must, as in other cases, compare the proportion of the dead to the living. In doing this we find that, while in England the mortality of children under five years of age is about 68 in 1000, and in the country districts only 37, in the city of London it is 82, and in the western division of it is 104. This represents a mortality that is 52 per cent. over the average of England, and 181 per cent. over that of the country. At first sight you may not, perhaps, perceive the magnitude of this fact; but when you reflect on it and consider that for every single death that should occur among us there are nearly three deaths, and that the surplus mortality is due to causes over which you have control, you will then see how important is the matter, and will, I doubt not, be ready to admit that there is an urgent necessity for prompt and active interference. And then, again, if we direct our attention to the mortality of the adult population, and compare it with what it should be in a healthy district, we shall notice that in every part of this metropolis the death rate of the people is fearfully large. Taking the mortality of 15 in the 1000 as that which is natural to this country, and comparing it with that of 30 in the 1000 which occurs in some parts of the city, you will perceive that the death rate is exactly doubled; and if in pursuing the inquiry still further we ask what has been the mean duration of adult life among those who have passed away from us we shall find that every man who dies in this city has been robbed of from 10 to 12 years of his existence. I have brought this class of facts prominently before you in the 5th table of the appendix. You will there see that while in England generally the mean duration of life with men who have reached the 20th year of their age is 40 years, in the city of London it is but 30, and in the western division of it it is only 28. What a contrast is this to what we are told of the Divine intention, that at least threescore years and ten are allotted to man; and how much more does it differ from the experience of those who have especially inquired into

the duration of human life, the natural term of which appears to be a hundred years; and what a commentary is it on the boast of civilization that one of its noblest objects is the preservation of this life, of which it would have us believe it entertains the highest appreciation! To think that here, in the very heart of civilized society, where the influences of wealth, and industry, and knowledge are exercised to their fullest extent, there should be such a disregard of human life that, if it be not sacrificed openly and by foul means, it is rarely the subject of serious consideration. Who would imagine that in the city the natural mortality of the place is not only doubled, but that men are stricken down in the very middle of their career; that he who starts upon a city life at the age of 20 hardly stands a better chance in his struggle for existence than do the average of infants when they are just born, for in the one case he only reaches to the age of 48, and in the other, with all the dangers of early life, they will get to be 41? Looking at the density of the population of England, and at the mean expectancy of life, we find that there is but one person to every half-acre of surface, and that a man at 20 years of age may expect to live to 60. In the city of London there are 179 persons to an acre, and the expectancy of life is to 50 years. In the western division of the city there are 212 persons to an acre, and there the man must not expect to live beyond the age of 48. The expectancy of life among young men, generally, at 20 years of age was up to 60. You will perceive that that is nearly the expectancy in London with shopkeepers and domestic servants; for the mean age at which they die is 58·8 and 58·6. Butchers, poulterers, and fishmongers live to the age of 53·8. Clerks, accountants, and messengers, reach to the age of from 52 to 52·3. The same is about the mean age of blacksmiths, gasfitters, and the workers in the coarse metals generally, while publicans, wine merchants, waiters, tailors, labourers, and shoemakers live to the age of from 49·9 to 50·3. Cabmen and ostlers and draymen live only to 49·4, and soldiers, sailors, and policemen reach only to 48 years. A like difference exists in the longevity of women, for, while the wife of the shopkeeper will live to be about 57 years of age, and the domestic servant to 51·5, the wife of the publican and beershep keeper and the wife of the cabman and ostler will only reach to 44·2 and 48 years of age; and, worse still, the poor needlewoman sinks into the grave at 42·6 years of age.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the Meeting of the Court of Examiners on the 3rd inst.:—

Blease, Thomas Torkington, Altrincham, Cheshire.
Bogg, Alexander, H.E.I.C.S., Madras.
Dwyer, Charles, Roscommon.
Dearden, James, Church, Lancashire.
Neale, Charles, Middlesex Hospital.
Rogers, John James Colin, H.E.I.C.S.
Sturges, M. J., Sydney-square, Mile-end-road.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of Medicine, and received certificates to practise, on October 9:—

Arthur, William Henry, Knaresborough.
Hingston, Joseph Tregelles, Plymouth, Devon.
Playne, Alfred, Nailsworth, Gloucestershire.
Sandford, F. V., Queen's Own Light Infantry Militia.
Savery, Evelyn Alexander O., Chepstow, Monmouth.
West, David Ormond, Purbrook, Portsmouth.
Williams, Peter, Carmarthen, South Wales.

DEATHS.

Cayol.—Dr. Cayol, one of the most distinguished of the Parisian Physicians, died, at his country seat, from apoplexy, on September 24, in the 70th year of his age. The friend and rival of Bayle, Laennec, Nysten, and other celebrities, he was appointed to the chair of Clinical Medicine at La Charité in 1823, and for eight years filled the duties of the post with great *éclat*. At the revolution of 1830, his political opinions being entirely in accordance with those of the fallen ministry, he was excluded from the Faculty. In 1819, M. Cayol was associated with Royer-Collard in the editorship of the *Bibliothèque Médicale*, and held that office during seven years. Afterwards he became, and continued to his death, chief editor of the *Revue Médicale*, and in its pages devoted many articles to the defence of Hippocratic doctrines, seriously attacked, as he believed these to be, by the prevailing tendencies of the Parisian school. He has also published a translation of Scarpa on Hernia, with additions; a treatise on Clinical Medicine; and another on Cancerous Diseases. He wrote with Bayle the article Cancer in the Dictionnaire des Sciences Médicales, and contributed some important cases to Laennec's treatise on Auscultation.

Garrod.—Oct. 6, at East Peckham, Kent, Samuel Garrod, Esq., Surgeon, late of Hackney, greatly respected by all who knew him. In practice prior to 1815. (Retired.)

Manners.—Oetober 9, at Clayworth, William Manners, M.D., in his 69th year.

Trayer.—The "Donald M'Kay," a large emigrant vessel bound for Melbourn, put into Queen's Town, bringing with her the melancholy intelligence of the death of her Surgeon, Dr. Trayer, who had been for many years the respected and assiduous House-Physician of the Cork South Infirmary, and who had determined on going to Australia for the benefit of a sea voyage. On Sunday, when the ship was off Cape Clear, he was ill, and died in the short spaee of three hours. He had, like many of his brethren, been overworked in the "famine and fever year;" had contracted typhus fever himself; and not being able afterwards to enjoy the leisure required for a perfect convalescence, his constitution had continued very gradually to decline, but hopes were held out that a foreign clime might restore it. Instead of that (as says a local paper) his wife is a widow, his children are orphans, and his sister bereft of the aid of a generous brother's care. But they have not been left without the sympathy of the Profession. At a meeting held on Saturday the 11th, in the space of half an hour the sum of £90 was paid into the hands of the Treasurer, Dr. Richard Corbett.

Royal Medical Benevolent College.—The foundation-stone of the chapel about to be raised in the grounds of the College at Epsom, for the use of the Pensioners and Scholars, was laid on Friday, the 10th inst., by E. R. Northey, Esq., High Sheriff of Surrey, in the presence of the Committee of Management and all the inmates of the College. Appropriate prayers were offered on the occasion by the Rev. R. Thornton, the Head Master. It is intended that the chapel shall be finished by the spring, when it is hoped that the fair contributors, to whose liberality the necessary funds for its erection are owing, will assist at the opening.

A General Meeting of the Members of the Society for Relief of Widows and Orphans of Medical Men in London and its Vicinity, was held on Wednesday the 8th instant, when the proceedings of the Court of Directors during the past six months were read. It appeared that Sir B. F. Outram's legacy of £100 had been duly received, and that above £800 had been expended in half-yearly grants to 33 widows and 25 children, with additional grants in some cases to the amount of £30. The following list of Officers and Directors for the ensuing year was read from the chair:—Directors—W. Macintyre, M.D., John C. Taunton, Esq., J. C. Salisbury, Esq., Richard Clewin Griffith, Esq., William Dickinson, Esq., C. Blakely Brown, M.D., Archibald Billing, M.D., John Propert, Esq., Sir James Eyre, M.D., Henry Blenkarne, Esq., Richard L. Thorn, Esq., Charles Hawkins, Esq., G. J. Squibb, Esq., Henry Combe, Esq., A. M. Randall, Esq., H. Jeaffreson, M.D., John Hilton, Esq., Henry Oldham, M.D.; Surgeons—Richard T. Eyles, Esq., William Self, Esq., Henry Sterry, Esq., G. Hamilton Roe, M.D, Harvey K. Owen, Esq., Robert B. Todd, M.D.; President — Sir Charles Mansfield Clarke, Bart., M.D., F.R.S.; Vice-Presidents—Martin Ware, Esq., Everard A. Brande, Esq., John Nussey, Esq., Sir J. M'Grigor, Bart., M.D., F.R.S.; Sir B. C. Brodie, Bart., F.R.S., Peter M. Latham, M.D., John Bacot, Esq., Thomas Turner, M.D., Thomas A. Stone, Esq., Benj. Travers, Esq., F.R.S., D. Henry Walne, Esq., A. J. Sutherland, M.D.; Treasurers—John Miles, Esq., Edward Tegart, Esq., John Clarke, M.D. (Acting.) Our readers should remember that no relief can be granted except to the widows and children of members, of whom we hope to see a great increase, for no Society can do more at present towards easing the hardships of the widows and orphans than this.

In the past half-year upwards of £800 had been voted and paid in half-yearly grants to widows and orphans, and for promoting the attainment of the means of self-maintenance by the latter. Widows who are 60 years of age now usually receive £40, and those under 60, £35 per annum. On the death of a member, of not less than two years' standing, who has the misfortune to leave his family destitute or nearly so, the widow, and the children under 14 years of age, immediately become eligible for this very welcome relief, and the Society's affairs are at present so providently conducted, that no risk of disappointment is incurred. In a few months the relief commences, and is steadily continued whilst the circumstances of the recipient remain unchanged. The most eminent men in the Profession benevolently become members of this Society, fully aware, that as the contribution of each member bears no proportion to the benefit received by the representatives of one that is unfortunate, the Society could not otherwise confer the substantial aid which it affords. In doing so, they also acquire a position which entitles them to recommend a similar step to those who are less secure of leaving their families suitably provided for, and to become the guardians of the Society's interests as officers and directors. The contribution of a member is two guineas a-year for a limited period, or a composition in one sum.

Sydenham College Medical School, Birmingham.—The winter session was inaugurated on Wednesday last by an introductory address from Mr. George Elkington. The theatre of the College was crowded with members of the Medical Profession who reside in Birmingham and the surrounding districts. The address of Mr. Elkington, which was listened to with marked attention, consisted of an earnest exhortation on the encouragements, duties, and trials which are met with in a Medical career. At the conclusion of the lecture a vote of thanks to the lecturer was carried unanimously, with a special request that the lecture should be printed. The distribution of prizes then took place, and subsequently the annual meeting of the Council was held, Dr. Russell presiding. The routine business of the College was transacted, and the annual report of the committee read. From it we learn that the College has continued to prosper during the past year; the number of students in attendance has been large; that evening meetings of the lecturers and students have been held for social intercourse and scientific instruction; that the Pathological, Materia Medica, and Botanical Museums have been considerably increased during the past year; the special thanks of the committee being presented to Messrs. Ryland, Thursfield, Pritchard, Simons, the late Mr. Hill, Mr. Johnson, and Mr. Robins; to Messrs. Smith, Jones, Evans, Wingate, and Bowen, students of the College, as contributors of specimens to the Museums. At the conclusion of the business of the day, the Council and friends dined together at the Queen's Hotel, under the presidency of Dr. Elkington.

University of Cambridge.—The Professor of Anatomy will commence his course of lectures on comparative anatomy and physiology on Wednesday, Oct. 22. The lectures will be delivered on Mondays, Wednesdays, and Fridays. The guide to these lectures will be the introductions to the animal classes in Van der Hoeven's "Handbook of Zoology." From the same introductions portions will be indicated as the subject-matter of the pass examination. The Professor's course of lectures on human anatomy and physiology will commence on Thursday, Oct. 23. The lectures will be delivered during the present term on Tuesdays, Thursdays, and Saturdays. The terms of attendance, five guineas for each of two courses, and afterwards gratis.

Murder by Cantharides.—The Court of Assizes of the Loire has been lately occupied with the trial of a farm-labourer named Bodet, for having been concerned in a case of poisoning. Bodet was, it appears, in the service of a farmer named Brivet, of Le Colombier, near Vitry-aux-Loges, and in the course of last spring formed an adulterous connexion with his master's wife. In consequence of this intercourse, the woman constantly threatened and ill-treated her husband. On the 15th of June the man died, no one being in the house at the time, except the woman and Bodet. It was suspected that they had murdered the man, in order to be able to marry; and an investigation was instituted. The body was opened, and it was discovered that the man had been poisoned by means of cantharides. Part of a bottle of wine, in which cantharides were mixed, was found in the house. It was then ascertained that on the 4th of June, five days before Brivet fell ill, Bodet had bought a quantity of cantharides from a druggist at Vitry-aux-Loges, and he could neither produce it nor state what had become of it. The jury brought in a verdict of guilty.

The Apothecaries of Ireland.—The Governor and Council of the Apothecaries' Hall have, on behalf of their Licentiates addressed a formal protest to the President, Censors, and Fellows of the King and Queen's College of Physicians against the adoption of "the orders" contained in "the supplement to the Pharmacopœia," recently issued by the College.

The Dublin Hospitals.—The Board of Superintendence of the Dublin Hospitals have held their first meeting, and have unanimously recommended the appointment of Denis Phelan, Esq., ex-Assistant Poor-law Commissioner, as their Secretary. Francis W. Brady, Esq., son of the Lord Chancellor of Ireland, is a member of the Board instead of Mr. George Roe, whose name was given in the published list. Mr. Roe's name had been added in consequence of some delay in the receipt of Mr. Brady's letter accepting office. Mr. Phelan has since been appointed.

Faculty of Physicians and Surgeons of Glasgow.—On the 7th instant, at a Meeting of the Council of the Faculty of Physicians and Surgeons of Glasgow, the following gentleman passed his examination for the Fellowship—date of diploma, October 11th, 1853:—

George Arthur Humble, M.D., London.

St. Mary's Hospital, Manchester.—This Institution, known of late years under the title of the Manchester and Salford Lying-in Hospital, was formally opened on Friday by the Countess of Wilton, in the presence of a large number of ladies and gentlemen. The company assembled in the lecture-hall of the newly-erected hospital, and included the Earl of Wilton, the Countess of Ellesmere, the Lord Bishop of Manchester, Sir Harry and Lady Smith, the Rev. Dr. Vaughan. The Countess of Wilton presided. The Lord Bishop of Manchester, in presenting the treasurer, and officers of the building, to Lady Wilton, said, the institution was intended purely for charitable purposes,—for conferring a benefit on the industrious poor, without affording those incentives to neglect the duties imposed by Providence which too frequently marked institutions of this kind. Its objects were to provide the best medical skill and care for the wives of industrious and well recommended persons at their own homes, and in those cases which required special care to provide at the institution the best and most comfortable accommodation. It was also valuable as a training school for young medical men. The Earl of Wilton, on the part of the Countess, declared the building to be opened, and the assembly was subsequently addressed by Dr. Radford, the Rev. Dr. Vaughan, and General Sir Harry Smith. The Ladies Wilton and Ellesmere, at the conclusion of the proceedings, intimated to Dr. Radford their compliance with the unanimously expressed wish of the company that they should become patronesses of the institution. In the evening a complimentary dinner was given by the officers of the institution to Dr. Radford, who has been one of the medical officers of the hospital for the last 40 years. The report of the building committee, which was read at the opening, refers to the munificent support of this gentleman, who has presented to the hospital a most valuable and extensive medical library, museum, and collection of instruments, besides a donation of 200*l.* towards expenses. It is specially a hospital for diseases of women and children under six years of age, and has both indoor and outdoor patients. It was founded in 1790, but the new building was projected as a commemoration of Her Majesty's visit to Manchester in 1851. Its front elevation is in the Italian style of architecture; it is erected from the plans of Mr. N. G. Pennington, architect, of Manchester; and it will afford a bed accommodation for between 80 and 90 patients.

Mr. Martin, of Reigate.—This gentleman, a Student of sixty years ago at the then united Schools of St. Thomas's and Guy's Hospitals, 1st October, 1796, entertained the gentlemen of the Schools of St. Thomas's and Guy's, with other friends who had been educated at those Hospitals, and who could conveniently honour him with their company at a *conversazione* at the Bridge-house Hotel, on Thursday evening, the 2nd instant. Mr. Martin, addressing the assemblage then pre-

sent, had the pleasure to offer some of the *memorabilia* of his student life, and of the characteristics of the school of that period, including anecdotes and remarkable particulars of the eminent teachers, and other most remarkable members of the Profession then flourishing in the metropolis. Concluding his address with a few friendly and cordial admonitions to the juniors present, advising them to be indefatigable in their pursuit and acquisition of professional knowledge, as their present special and most important object, to enable them to be able and skilful Practitioners, and with the same spirit of enthusiasm to acquire, by future labours and opportunities, as high a standard of attainment as possible in the collateral and auxiliary sciences, as well as in polite literature, which, with pure morals and unexceptionable conduct, should constitute them as among the most perfect gentlemen in society with highly accomplished and enlightened minds.

City Dispensary.—The claims of this Institution were ably advocated on Sunday by the Rev. J. Charlesworth, B.D., at the Church of St. Mildred, Bread-street, Cheapside, when a liberal collection was taken. The reverend gentleman stated that this well-known institution was founded in 1789, since which period it had been continuously relieving the poor of the City, having treated no less than 362,278 patients, while 102,427 had been visited at their own habitations who had been unable to attend at the dispensary.

Consumption of Tobacco in Paris.—According to a statistical work lately published on the consumption of Paris, the quantity of tobacco consumed in smoking in 1854 was nearly double that of 1839, and that of cigars five times as much; while that of snuff, on the contrary, presented a marked diminution. It is calculated that the number of smokers in Paris, including the garrison, is about 420,000, and the total consumption gives 1 kilogramme 973 centigrammes of tobacco, 143 cigars, and 4 cigarettes for each person; or, calculating the cigars at 250, and the cigarettes at 1000 to the kilogramme, 2 kilogrammes 749 centigrammes for each. In England the consumption is calculated to be 16 ounces a head.

A Medico-Chirurgical Society for Greenwich.—A meeting of the Medical Practitioners of Greenwich, Blackheath, and the neighbourhood, took place in Greenwich on Tuesday, for the purpose of forming a Medico-Chirurgical Society. The chair was taken by Mr. John Sutton, of Blackheath. The meeting was ably addressed by Drs. King, Purvis, Griffith, Messrs. Burton, Mitchell, and several of the Medical gentlemen present; after which they proceeded to name the Society, and to nominate a President, Vice-Presidents, Council, Treasurer, Secretary, Librarian, etc.

Royal Visit to Canada.—The *Canadian News* tells the following story:—"There is a report prevalent in Canada that her Majesty's Physician, Sir Henry Holland, has come over for the purpose of ascertaining whether Queen Victoria might with safety trust her royal person to the Canadian climate. The universal response in Canada is, 'that the climate can compare advantageously with any in Europe, not even excepting Italy itself.' Her Majesty need not have any apprehensions of this kind, if she pleases to visit this—the greatest of her colonies. Let her come, and she will meet with a most enthusiastic reception."

General Apothecaries' Company.—This company has a laboratory in Berners-street, Oxford-street, and on Wednesday a number of gentlemen assembled for the purpose of inspecting it, and hearing a statement of the principles on which the company has been founded, and the objects which it is proposed to accomplish. Mr. John James Ridge, M.D., one of the directors, conducted the visitors through the laboratory, and explained the various processes. Most of the preparations, Mr. Ridge stated, were made on the premises, but some are procured from manufacturers; these, however, being all tested by a practical chemist, Herr Von Sicherer, a pupil of Liebig's, who performed some experiments, one of which it may be interesting to notice. It was with respect to the colour test of the presence of strychnine. At Palmer's trial the evidence was that the usual colour test failed to evince the presence of strychnine, and that this was the strong point of the defence. It was, however, in evidence, that Palmer had administered to Cook a quantity of tartarised antimony, and Herr Von Sicherer endeavoured to show that the presence of tartaric acid in any form neutralized the action of bi-chromate of potash, by which the violet colour would, in the absence of tartaric acid, be produced. An inkling of this is given in Dumas' novel of Monte Christo, and it was not improbable, he said, that Palmer, from thence, was induced to saturate his victim with tartarised antimony, with a view of rendering the proof of the administering of strychnine more difficult, if not impossible. After the inspection of the laboratory, the visitors dined, and after the usual loyal toasts, the chairman, Dr. Ridge, said the company had been established to meet the urgent demand of the public for pure drugs and chemicals, and medicines prepared by the aid of the present advanced state of science. He was told that the adulteration of drugs in London was as nothing to the adulteration which took place in the provinces; where 50 per cent. was applied in London, 75 or 90 per cent. was not uncommon in the country. At Wolverhampton a dealer had advertised to supply any powdered drug at 20s. a cwt., while they all knew that some drugs could not be supplied at 20s. a lb. He sent some to America, and it was found not to contain any of the article which it professed to be. He was not prepared to say that the Druggists generally, either in London or the country, willingly or knowingly adulterated their drugs. He did not believe that they did, but they from ignorance sold drugs which did not contain what they were represented to contain, and the public suffered in consequence. Medical men, not having leisure to examine what they purchased, were themselves deceived, and were obliged to judge of things by their operation rather than by their composition, and thus the art of healing was made rather a matter of chance, than, as it should be, a matter of mathematical certainty. The profession was much indebted to the Apothecaries' Company; but their prices were high, and they scarcely supplied 2 per cent. of the practitioners. This company proposed to prepare and sell medicines without adulteration or substitution, to follow the orders of the colleges in all preparations.

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	4	3	8	7	2
North	490,396	4	5	4	8	14	10
Central ..	393,256	4	7	13	4	8	7
East.....	485,522	3	3	14	3	8	15
South	616,635	3	6	12	5	9	8
Total..	2,362,236	14	25	46	28	46	42

Mortality Notabilia.—The return for the week that ended on Saturday exhibits a low rate of mortality. The deaths, which in the previous six weeks have been on an average 1085, declined last week to 939. In the corresponding weeks of ten years 1846—55 the average number was 1003, and if this is raised by a tenth part for increase of population it becomes 1103, compared with which the present return shows a reduction of 164. Deaths from the zymotic or epidemic class of diseases, which in the previous week were 256, were last week only 234. The deaths from diarrhœa have now fallen to 46. No fatal case of cholera is recorded. The Medical attendant of a woman who died at 63, Drummond-street, Somers Town, of malignant typhus, reports certain nuisances in the rear of the house, and states that the whole of this neighbourhood is, more or less affected, with low fever; the drainage (he adds) is everywhere defective.

Births.—The births of 782 boys and 757 girls, 1539 children, were registered—average 1361.

Meteorology.—The mean height of the barometer in the week was 29·883 in. On Thursday and Friday the mean daily reading was above 30in,, and on the latter day the highest reading in the week occurred, which was 30·12 in. The mean temperature was 54·3°, which is 2·5° above the average of the same week in 38 years. The mean temperature was above the average on every day. The highest temperature occurred on Friday, and was 61·8°; the lowest 49°, on Saturday. The mean dew-point temperature was 52·4°; and the difference between this and the mean air temperature was 1·9°. The mean temperature of the water of the Thames was 56·8°. The wind which was in the south-west and east in the beginning of the week, was in the north-east towards the end. Rain 0·80 in. Horizontal movement of air 230 miles; no electricity shown.

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, October* 11, 1856.

Causes of Death.	In the Week ending Saturday, Oct. 11, 1856. Deaths of Persons. AT ALL AGES. Mean temp.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature.....	54°3						51°0
All Causes	939	501	123	125	153	37	1003·4
Specified Causes	937	500	123	125	152	37	994·8
Diseases:—							
1. Zymotic Class	234	180	23	13	11	7	316·7
2. Dropsy, Cancer, and others of uncertain seat	47	8	5	15	15	4	44·8
3. Tubercular Class	156	63	60	28	5	..	162·6
4. Of Brain, Nerves, etc. ..	111	56	4	17	31	3	99·9
5. Of Heart, etc.	32	3	4	14	8	3	37·3
6. Of Respiratory Organs ..	151	96	6	16	28	5	116·8
7. Of Digestive Organs ..	47	12	9	11	15	..	60·3
8. Of Kidneys, etc.	15	1	5	4	4	..	13·7
9. Of Uterus; viz. — Puerperal Disease, etc. ..	3	..	2	..	1	..	9·2
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	5	1	2	1	1	..	5·8
11. Of Skin, etc.	3	..	..	..	2	1	1·4
12. Malformations	3	3	..	..	..	..	3·5
13. Debility from Premature Birth, etc.	28	28	..	..	..	..	25·5
14. Atrophy	36	31	..	..	5	..	29·8
15. Age	37	..	..	..	24	13	36·5
16. Sudden	3	1	..	2	..	..	6·0
17. Violence, Privation, etc...	26	17	3	4	1	1	25·0
Causes not specified.. ..	2	1	..	..	1	..	8·4

TO CORRESPONDENTS.

G. D.—Nitrate of uranium may be procured from Roussean, Rue de l'Ecole de Médecine, Paris, at 2s. 6d. the ounce.

Dr. M.—Mr. Swan's work on Vision has not yet been published.

An Irish Lawyer.—Mr. Wilde.

X. Y. Z.—Certainly, for surgical attendance.

A Provincial Esculapius.—We have repeatedly exposed the exhibition which has excited our Correspondent's indignation so justly, but the publication of his letter would subject us to an action.

A Subscriber.—The Company *promises* well, but has not had time, as yet, to show how far it is willing to fulfil its promises.

An Aspirant.—The following are the conditions of the Astley Cooper Prize of £300. They should be made generally known by advertisements:—

The sixth triennial Prize will be awarded to the author of the best Essay or Treatise "On the Structure and Use of the Thyroid Gland." The condition annexed by the Testator is, that the Essays or Treatises written for such Prize shall contain original experiments and observations, which shall not have been previously published; and that such Essays or Treatises shall (as far as the subject shall admit of) be illustrated by preparations and drawings, which preparations and drawings shall be added to the Museum of Guy's Hospital, and shall, together with the Work itself, and the sole and exclusive interest therein and the copyright thereof, become thenceforth the property of the Hospital, and be transferred as such by the successful candidate.

It is the will of the founder that no Physician, or Surgeon, or other officer for the time being, of Guy's Hospital, or of St. Thomas's Hospital, nor any person related by blood or affinity to any such Physician or Surgeon, or other officer for the time being, shall at any time be entitled to claim the Prize; but, with the exception here referred to, this (the Astley Cooper) Prize is open for competition to the whole world.

Candidates are informed that their Essays, either written in the English language, or, if in a foreign language, accompanied by an English translation, must be sent to Guy's Hospital on or before January 1st, 1859, addressed to the Physicians and Surgeons of Guy's Hospital.

Each Essay or Treatise must be distinguished by a motto, and be accompanied by a sealed envelope containing the name and address of the writer. None of the envelopes will be opened, except that which accompanies the successful Treatise. The unsuccessful Essays or Treatises, with the illustrative preparations and drawings, will remain at the Museum of Guy's Hospital until claimed by the respective writers or their agents.

Mr. Johnston.—The legal definition of poisoning is given in the Act of Parliament, 1st Vict. cap. 85, sect. 2, where it is enacted, that "Whosoever shall administer, or cause to be taken by any person, any poison or *destructive thing*, with intent to commit murder, shall be guilty of felony, and being convicted thereof shall suffer death."

Diligent.—Dr. Parkes's Clinical Lecture, in which the effect of food, gallic acid, and sesquichloride of iron on the urinary constituents was detailed, appeared in this Journal on the 8th July, 1854.

W. B. H.—M. Lallemand died in 1854.

Alpha.—All persons who intend to graduate in Medicine at the University of London must pass the Matriculation Examination, which is held once a-year, and which comprises Greek, Latin, Mathematics, Natural Philosophy, Chemistry, English Literature, French, and German. This rule is relaxed only in the case of those whose Medical studies were commenced in or before January, 1839.

Edinensis.—The Proceedings of the Royal Society are sent free to Fellows. They may be obtained by others, of Messrs. Taylor, Red Lion-court, Fleet-street, on prepayment of an annual subscription of 5s. This includes the expense of conveyance by post. The Library of the Society contained, in 1851, 25,000 volumes. The subscription is £4 4s. per annum, with £8 8s. as admission fee.

Querist will find an Epitome of all the Acts of Parliament of interest to the Profession, from Edward II. to the end of the Session 1855, in the *Medical Times and Gazette* of Sept. 22, Oct, 13, and Nov. 3, 1855. The last Act passed on the subject is the 18th and 19th Vict., cap. cxix. section 42.

Poor-Law Medical Reform Association.—Mr. Griffin will feel obliged if any Poor-Law Medical Officer in England and Wales, who has not received his copy of the List of Unions and Local Incorporations, with the Questions, will send him a notification to that effect, when a list will be forwarded.

Farmacista.—The following are the terms of the order of the Irish College of Physicians for the prevention of accidental poisoning:—

1. That angular bottles or vessels, and none others, be employed in the dispensing of all medicines intended for external use.
2. That round bottles or vessels, and none others, be employed in the dispensing of all medicines intended for internal use.
3. That all the articles of the Materia Medica, and preparations included in the list which is hereto appended (see Supplement) be kept in the shops and warehouses in angular bottles or vessels; and also that the same shaped bottles and vessels be employed in the case of such medicines and preparations being sold or delivered.
4. That all the articles of the Materia Medica, and preparations not included in the list appended (see Supplement), be kept in shops or warehouses in round bottles or vessels; and also that the same form of bottle or vessel be employed in the case of their being sold or delivered.
5. That a similar rule be observed with reference to other medicines, which, though not in the list of this Pharmacopœia, may be kept by Apothecaries or Druggists, namely, that those possessed of dangerous qualities should be invariably kept and sold or delivered in angular bottles or vessels."

COMMUNICATIONS have been received from—

Dr. Merriman; A Provincial Esculapius; Mr. Read; Mr. Gorham; Mr. Holmes Coote; Dr. Davidson; Mr. Jones; Dr. E. Smith; Mr. Binns; Treasurer of the Royal Medical Benevolent College; Alpha; Mr. Newcombe; Mr. John Stuart; Dr. S. T.; Philalethes; No Coffinite; Dr. Gardner; Mr. Bassett; Dr. Brown-Sequard; Dr. McDermott; Mr. Holthouse; Dr. Ramskill; Mr. Waters; Mr. King; Dr. Gordon; Mr. W. Smith; Dr. Arnott; Mr. Long; Mr. Squibb; Dr. Chowne; Mr. Griffin.

APPOINTMENTS FOR THE WEEK.

October 18. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

Medical Society of London, 8 p.m.: Mr. J. Gay "On Resection of Joints."

20. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

Pathological Society, 8 p.m. Council meets at 7.

21. *Tuesday.*

Operations at Guy's, 1 p.m.

22. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

Hunterian Society, 8 p.m.: Mr. J. Hutchinson "On the Communication of Syphilis from the Fœtus to the Mother." Adjourned discussion.

23. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

24. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

25. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

ORIGINAL LECTURES.

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT OF THE DISEASES OF THE EAR.

DELIVERED AT

St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.,
Aural Surgeon to the Hospital, and Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

Lecture VI.

(Reported by JAMES HINTON, Esq.)

EXTERNAL MEATUS DERMIS.

The diseases to which the *Dermis* of the external meatus is subject are :—

1. *Acute inflammation*, ending in resolution, discharge of serum, mucus, or pus, or in ulceration.
2. *Chronic inflammation*, with or without discharge, polypoid growths or caries of the bone.
3. *Ulceration*, with or without caries of the bone.

I shall proceed to day to speak of these diseases.

1st. *Acute inflammation of the dermis.*

This is one of the diseases hitherto comprised under the term *otitis*. Every one must be conscious of the high degree of sensibility possessed by the external meatus, especially at its middle part. This sensibility is due to the dermis, which is abundantly supplied with nerves and blood-vessels, and is covered by a delicate layer of epidermis. This sensitive membrane is liable to inflammation from many *causes*. Among them may be named the introduction of foreign bodies or acrid drops into the meatus ; an accumulation of cerumen; the application of cold or heat, especially when arising from sudden changes of temperature in the weather, or any debilitating illness.

The *symptoms* of this affection, at its commencement, are a feeling of fulness, stiffness, and uneasiness in the meatus, which is increased when the ear is pressed upon, or when the outer ear is moved by its muscles. This sensation is followed by pain, which is often very acute, although this is not so distressing as in acute inflammation of the mucous membrane of the tympanum ; as accompaniments of the pain, throbbing and singing are frequently experienced, and there is sometimes a diminution of the hearing power. These latter symptoms are probably due to congestion of the middle and internal ears. With these symptoms there is generally a quick pulse, feverishness, and restlessness ; and the pain sometimes extends over the side of the head. Upon *examination*, in the early stages, the dermoid meatus is seen to be red, its blood-vessels being apparent through the epidermis. This redness sometimes extends to the dermoid layer of the membrana tympani, the vessels in the circumference of which become enlarged. Should the affection advance, the dermis becomes tumefied, so as to diminish the calibre of the meatus one third or one half, and the pain increases. In some cases these symptoms subside without the formation of matter ; in others a copious secretion suddenly takes place, and it is followed by such immediate relief that the patient thinks that an abscess has burst. A careful examination, however, reveals the real condition of the meatus. The discharge filling the meatus having been carefully removed by the syringe, the surface of the tumefied meatus is seen to be of a deep red colour, wholly denuded of epidermis, and in its place secreting a mucous fluid. In the severe forms of this inflammatory action, the secretion consists of mucus, which comes away from the ear as a large mass of viscid white matter, somewhat analogous to that secreted by the mucous membrane of the tympanum in cases of catarrh, the difference being that in the case of mucus from the tympanum, the circumference of the mass is more filamentous, the colour is not so white, and the substance has less consistence. After this discharge has continued for some days, it loses its viscid character, and becomes milky ; and, so long as the discharge remains, and the affection continues to be chronic, this milky character persists. When the inflammation is not very severe, the secretion is always milky, instead of being of a mucous character. In other cases the secretion is thin, and nearly as transparent as serum ; at times it is tinged with blood. The quantity of this serous secretion, which is often poured out by the dermoid lining of the external meatus is a source of astonishment to both patient and medical man. I have never had the opportunity of collecting the secretion, so as to be able to form a correct estimate of the quantity effused in twenty-four hours ; but, judging from the saturation of handkerchiefs, linen and pillows, it must amount to several ounces. The source of this large quantity of secretion is the blood-vessels of the dermoid meatus, which are extremely numerous and very large. Some patients are subject to frequent attacks of acute inflammation of the meatus, but in them the symptoms are not very severe.

In some cases the inflammation extends to the bone, and thence to the membranes of the brain. It is not uncommon to see patients in whom there are some symptoms of central irritation, although they are not of a serious character ; in others they become so formidable as to destroy life. I shall have to speak of these cases hereafter.

The *treatment* of acute inflammation of the dermoid meatus consists, in the milder cases, of the application of evaporating lotions or of hot fomentations and poultices : in the more severe cases leeches should be applied to the margin of the orifice of the meatus so as to remove the blood directly from the congested vessels ; the meatus should be syringed with hot water containing some narcotic, and the head kept somewhat raised. The patient should be kept in bed perfectly quiet, free from all noise, and small doses of calomel and opium may be administered. After the disappearance of the pain the ear is to be washed out thoroughly with warm water, three or four times or even oftener daily, so as in the first place to ensure the removal of the whole of the discharge, the presence of which is apt to cause irritation, and in the second place to give a warm bath to the inflamed membrane. Unless there is some constitutional debility, or unless the ear has been weakened by previous disease, the discharge usually disappears in the course of a few days, the epidermis is again naturally secreted, and the power of hearing returns ; on the contrary, in some cases foundation is laid for a chronic catarrhal inflammation of the dermis, of which I shall presently speak.

CASES.

Case 1.—*Acute inflammation of the dermoid meatus arising from Cold.*—M. F., Esq., aged 26, a Medical man, consulted me in January, 1853, on account of considerable pain in each ear. He said that fourteen days previously, after being wet through, he had an attack of violent pain in both ears—but especially in the left ; after twenty-four hours' pain discharge appeared and relief ensued. The day before consulting me, during a journey, pain was again felt in each ear, but more particularly in the right ; at times the pain was greatly aggravated. On *examination* the dermis of each meatus was seen to be very red and swollen, the epidermis was absent but there was no discharge. The hearing distance of each ear was a foot and a half. An evaporating lotion was applied to each ear on cotton wool, and the affection subsided.

Case 2.—*Acute inflammation of the dermis ; copious secretion of mucus.*—Miss M., aged 17, tall and rather delicate, consulted me December, 20, 1853, on account of pain in the right ear, accompanied by discharge.

History.—Ten days previously he felt a slight pain in the ear which gradually increased so as to interfere with the rest at night. This continued for eight days, during which time it was better at times. Two days previous to seeing me, a discharge appeared from the ear and it has continued.

On *examination* the meatus was seen to be filled by discharge, which, when removed by the syringe, was found to consist of a large white mass of mucus, about the size of an ordinary horse bean, and of scales of epidermis. The membranous meatus was much tumefied, its surface being red ; the dermoid layer of the membrana tympani was also red and swollen. The hearing distance was only eight inches.

Treatment.—Two leeches were applied to the orifice of the meatus, which was syringed out with warm water thrice daily. The pain gradually subsided, and in six days the discharge had disappeared.

Case 3.—*Acute inflammation of the dermis, great deafness. Copious secretion of serum.*—A.H.H., Esq., aged 38, of a weakly constitution, sent for me in January, 1854.

History.—During the previous three weeks he had been suffering from an attack of inflammation of the lungs, and four

days previously, when becoming convalescent, he was seized in the night with a violent pain in the left ear. This, in spite of treatment, lasted for about twelve hours, at the end of which time there was a sudden burst of discharge from the ear, attended by considerable relief from pain. When seen by me on the fourth day after the discharge had appeared, there was still great sensitiveness of the meatus, and there was so considerable an amount of deafness that the watch was not heard even when placed in contact with the ear. On *examination*, the dermis was found swollen and red, and the dermoid layer of the membrana tympani was in the same state. There was so copious a secretion of serum that in the space of half an hour a white handkerchief was perfectly saturated with it. Great fear was felt lest the ear should have been seriously injured by the inflammation, but finding that the membrana tympani stood out naturally and feeling that congestion of the tympanic mucous membrane was quite sufficient to produce the deafness, hopes were held out that the hearing would return as soon as the congestion subsided. A leech was ordered to be applied to the margin of the orifice, every second day; the meatus was syringed out with warm water twice daily, and slight vesication was used at the back of the ear. In the course of three days, the discharge began to subside, the pain ceased, and at the end of ten days the hearing was restored.

Case 4.—*Frequent attacks of inflammation of the dermis, hearing power natural.*—Miss C., aged 28, consulted me on March 7, 1854. *History.*—During two years has been subject to attacks of pain in each ear, followed by discharge, after which there has been considerable itching. Three months ago she suffered from one of these attacks of pain, since which she has had a constant irritation. Upon *examination*, the dermis lining each meatus was observed to be red and swollen. The hearing distance of each ear was natural. By the application of leeches to the margin of the orifice of the meatus, the symptoms of irritation disappeared, and the recurrence of the attacks of inflammation was prevented.

2nd.—*Chronic inflammation of the dermis lining the meatus.* This affection may be subdivided into—

(a) Simple chronic inflammation.

(b) Chronic catarrhal inflammation.

(a) Simple chronic inflammation.—Simple chronic inflammation of the dermoid meatus without discharge, is frequently met with. It is often associated with a declining state of health, at other times it is a purely local affection. One of the most common predisposing causes, is a residence in moist atmosphere. In some very obstinate cases a change of air has been requisite before the affection could be abated. The exciting causes appear to be the same as those of acute inflammation, viz., the application of cold or of any irritating substances to the meatus; perhaps the most common exciting cause is the habit of picking the ear with some foreign body. The symptoms of chronic inflammation are a feeling of distension in the ear, often coupled with slight pain, or with an intense itching. Sometimes the dermis is tumefied, so that the canal is diminished to one-half, or even to one-fourth of its natural size. In other cases the dermis is scarcely at all swollen, but its free surface is red, and the epidermis is thrown off in large flakes. These flakes of epidermis accumulate and form large masses, which consist of several layers, and these masses are apt to block up the meatus, and produce a serious diminution in the hearing power. In some cases this epidermis collects in such large masses as to dilate the meatus, or to cause disease of the bone. In other instances it produces acute inflammation of the dermoid meatus, and of the dermoid layer of the membrana tympani.

Treatment.—When there is hypertrophy of the dermis without much tenderness, a solution of nitrate of silver (℥i ad ℥i) may be applied twice a week: slight counter-irritation may at the same time be kept up over the mastoid process. If the surface of the dermis is denuded of epidermis in parts, and more vascular than natural, the meatus should, in the first place, be syringed with warm water, so as to remove all the particles of epidermis which are apt to cause irritation, and at the same time the warm water acts as a soothing agent upon the dermis. While this syringing is carried out, an astringent lotion may be applied on cotton wool to the surface of the meatus. When the inflammatory symptoms are subdued, a weak solution of nitrate of silver (gr. 10, ad ℥i.) may be applied twice daily. If the epidermis collects within the meatus, it must be removed by means of the syringe; on account of its density, and the close manner in which one layer is folded within another, the removal of masses of epidermis often requires considerable patience, but it is not usually necessary to resort to other measures than the use of the syringe.

CASES.

Case 1.—*Simple chronic inflammation of the dermoid meatus. Great Irritation.*—R. P. A., Esq., aged 47, in good health, consulted me on July 4, 1853.

History.—During the last year and a half he has suffered at times from extreme itching, accompanied by dulness of hearing, followed by slight discharge. Upon examination, the meatus of each ear, near the orifice, was found to contain a considerable quantity of soft cerumen; at the middle part, the dermis was of a deep red colour, and the blood-vessels were large and tortuous. The hearing distance with the right ear was 18 inches, with the left 7.

Treatment.—Each meatus was washed out with half a pint of warm water twice daily, and at night a lotion, consisting of a solution of chloride of zinc in water (gr. ij. ad ℥j.), was applied on cotton wool to each meatus. In the course of a fortnight he was quite cured.

Case 2.—*Simple chronic inflammation, with desquamation of the epidermis.*—Miss E. P., aged 39, in a somewhat debilitated state, consulted me on July 1, 1853.

History.—During the last two or three winters, after attacks of cold, has suffered from considerable pain in each ear, accompanied by deafness. The pain remains for two or three days, then a skin comes away, which is followed by relief to the pain, and by improvement to the hearing. Six months since had a very bad attack, which was succeeded by discharge, which remained for a few days. During the last three days has suffered from considerable irritation in the ears. Upon *examination*, the meatus of each ear was found red in parts; this redness on the left side extended to the dermoid layer of the membrana tympani. There were portions of epidermis adhering to the surface of the dermis. When these were removed the dermis was quite denuded. The hearing distance with the right ear was three inches, with the left it was one inch.

Treatment.—Two leeches were applied to the margin of the orifice of each meatus, warm water was syringed into each ear twice daily, and, when the congestion was diminished, a solution of nitrate of silver in water (gr. v. ad ℥j.) was applied to each ear twice daily. A small portion of vesicating paper was also applied over each mastoid process, and tonic medicines were administered. This treatment was followed by great relief, and when I saw the patient again, in December, the hearing was very much improved, and there was an abundant secretion of cerumen in each ear; there had been one attack in the left ear in the month of August.

Case 3.—*Chronic inflammation of the dermis, with great hypertrophy.*—Miss T., aged 57, in tolerable health, consulted me in January, 1853, on account of a considerable irritation and deafness in each ear.

History.—During the last five or six years has been deaf at times, the deafness having been accompanied by a considerable swelling in each ear. When the swelling decreased, the hearing power somewhat returned. About three weeks since felt much irritation in each ear, accompanied, at times, by pain and much dulness of hearing, but not by discharge. Upon *examination*, each meatus was found to be so tumefied that the tube would only admit an ordinary-sized probe; the surface of the dermis was of a plumb colour; the watch was not heard, excepting when pressed on the ear.

Treatment.—Leeches were ordered to be applied to the orifice of each meatus, and to be followed by the use of a solution of nitrate of silver (℥ss. ad ℥j). I did not hear the result.

Case 4.—*Chronic inflammation of the dermoid meatus, accumulation of epidermis.*—The Rev. G. T., aged 55, consulted me in July, 1850, on account of pain in the left ear, accompanied by deafness.

History.—During several months has had a tenderness in the left ear, accompanied by a sensation of fulness and a diminution of the hearing power; latterly these symptoms have increased. Upon examination, the surface of the outer half of the meatus was observed to be red and somewhat tumefied, the inner half was completely full of epidermis; the hearing distance with the watch was two inches. The treatment consisted in the removal of the collection of epidermis, by means of the syringe and warm water; this opera-

tion, however, required the greatest care, on account of the extreme tenderness of the surface of the meatus, the ordinary stream of water from the syringe being productive of most severe pain. Upon the removal of the collection the hearing power was greatly improved, the surface of the dermis being red. A weak solution of nitrate of silver was applied to the surface of the meatus twice a-week; this was followed by some improvement, but the epidermis again collected. After its removal mild astringents were used, and the ear was syringed frequently with warm water; the effect was to diminish the inflammation, but the epidermis still continues to collect, and it requires removing by means of the syringe every two or three months; the moist atmosphere in which this patient lives is probably a cause of the unyielding character of the affection.

Case 5.—Chronic catarrhal inflammation of the dermoid meatus.—This disease is one which has been commonly classed among the cases of otorrhœa. As its name implies, it consists of a chronic inflammation of the dermoid meatus, accompanied by discharge. In many instances the disease is confined to the meatus, while in others it advances to the dermoid layer of the membrana tympani. It is most commonly met with in children, although it is by no means rare in the adult. When it occurs in childhood it is usually accompanied by a tendency to glandular enlargements, or by some other sign of constitutional debility. In the adult, it is also often symptomatic of a depressed state of health. The *exciting cause* may be an attack of acute inflammation of the dermis, an injury, the use of stimulating applications, an attack of scarlatina, measles, or catarrh. This affection often has no assignable cause, and appears with a slight itching in the ear; sometimes, indeed, the appearance of the discharge is the first indication of the presence of any diseased action. In the early stages of this affection there is usually but little diminution of the power of hearing, even when the inflammation and hypertrophy extend to the dermoid layer of the membrana tympani. After the disease has remained for some time, the mucous membrane of the tympanum is apt to participate, and to cause deafness. It must, however, be borne in mind, that catarrh of the dermoid meatus, and of the dermoid layer of the membrana tympani are frequently symptomatic of irritation within the tympanic cavity, and these affections cease so soon as the internal irritation has been overcome. It will be observed, that in these cases of *sympathetic* catarrh of the dermoid meatus, there is usually a history of previous irritation in the tympanum, and a considerable dulness of hearing commonly precedes the appearance of the discharge. After this affection has persisted some time, there often occurs considerable irritation in the meatus; sometimes there is pain and now and then a discharge of blood. The latter symptom is, however, more common in cases in which a polypus is present.

Upon *examination* of cases of catarrh of the dermoid meatus, the dermis is generally found to be thicker than natural; sometimes it is so thick as nearly to close the tube; in some cases the surface of the dermis (denuded of epidermis) is red, in others it is blanched. The discharge has usually a very offensive odour; its colour varies, from being quite white, like milk, to a dark slate colour. The peculiarity of this discharge is that, whatever may be its quantity, or colour, or consistence, it does not contain any masses of mucus floating in it, but it mixes with water, producing a general opacity. In cases where a polypus coexists with chronic catarrhal inflammation of the dermis, the discharge is observed to contain flocculent mucus; it is also seen in cases of ulceration of the fibrous laminæ of the membrana tympani; sometimes there is a discharge of blood. Where chronic catarrhal inflammation extends to the dermoid layer of the membrana tympani, the structure of this membrane, like that of the dermoid meatus, becomes hypertrophied, and often much congested. The membrana tympani loses its natural colour and form; its outer surface is flat, the processus longus, and frequently the processus brevis, are completely concealed by the hypertrophied membrane.

The *treatment* of chronic catarrh of the dermoid meatus consists in the efficient and frequent use of the syringe and warm water, whereby the discharge is thoroughly removed, and the meatus cleansed. Should there be symptoms of pain or irritation, one or two leeches should be applied to the margin of the orifice of the meatus, and these may be followed by the use of warm fomentations, steam-baths or poultices. When the irritation has disappeared, weak astringent injections may be used, and slight counter-irritation kept up over the mastoid process. These measures, coupled with the administration of tonic medicines and attention to the general health, will frequently put a stop to the affection. In more obstinate cases it is requisite to keep up a discharge over the mastoid process by means of vesication or croton-oil liniment; a solution of the nitrate of silver (from 10 to 40 grains to the ounce) is also to be applied to the surface of the meatus every third day. Some cases, in spite of all remedies, are but slightly meliorated after two or three months' treatment: it is, however, of great importance that the treatment be pursued to prevent the supervention of caries of the bone, ulceration of the membrana tympani, and the development of polypus.

Case 6. — Chronic catarrhal inflammation of the dermoid meatus during teething.—J. A., aged 9 months, pale and not strong, was admitted under my care at St. Mary's Hospital, in November, 1854, on account of an offensive discharge from the left ear.

History.—The mother stated that about two months previously when the child was irritable and restless from teething, a discharge took place from the left ear; at first the quantity was small but it had gradually increased and had become very offensive.

Upon *examination* the left external meatus was observed to be full of a white milky discharge; upon the ear being syringed, the discharge mixed with the water which became opaque and milky, and masses of epidermis floated in the water, but there was no appearance of mucus. After the removal of the discharge the dermis was observed to be so swollen as to diminish the calibre of the tube one half, the inner surface of the dermis was denuded of epidermis and somewhat redder than natural; the dermoid layer of the membrana tympani was white and flat.

Treatment.—Daily exercise in the open air was ordered and cod-liver oil was administered. The surface of the body to be sponged daily with tepid water. The ear was ordered to be syringed out with warm water twice daily, and a solution of chloride of zinc (one grain to an ounce of water) to be applied on cotton to the tube of the ear during the night. Under this treatment the health of the child greatly improved, the quantity of the discharge diminished, and in six weeks it had disappeared.

Case 7.—Catarrh of the dermis in both ears of a child, causing dulness of hearing.

Master E. M., aged 3½ years, was brought to me on April 6, 1855, on account of a discharge from each ear, and a dulness of hearing. He was pale and thin, his general health was not good, and he was subject to enlargements of the cervical glands.

History.—About two years previously, without any assignable cause, a discharge suddenly took place from the right ear; after a month's duration, the left ear was similarly affected; the discharge was abundant, and the odour was very offensive. After remaining for three or four months, the discharge disappeared from both ears, but a month previous to consulting me it had re-appeared with the same symptoms as formerly.

Upon *examination* the meatus was seen to be full of milky discharge; the surface of each meatus was red; the substance of the dermis swollen. The dermoid layer of the membrana tympani was red and thick. The hearing power was so much diminished that he required to be spoken to loud within a distance of two yards. The watch was not heard except when in contact with the right ear, and when pressed upon the left. It was evident that the inflammation had extended to the tympanic cavity, as well as to the membrana tympani.

Treatment.—Each ear to be washed out with tepid water, thrice daily; and afterwards to be syringed with a solution of acetate of zinc (5 grains to the ounce). A portion of vesicating paper to be applied over each mastoid process, every second night, and two tea-spoonfuls of steel wine to be given twice daily. This treatment, in the course of two months, produced considerable benefit; the quantity of discharge diminished, and the power of hearing was improved. This improvement, however, did not continue, and I saw the patient again at the end of the year, much in the same state as when he was first brought to me. I then found that the process of syringing had not been efficiently carried out, a large quantity of discharge being left in each ear after the operation. Strict attention to this point was enjoined; a solution of nitrate of silver (gr. 10, ad ʒi.) was applied to the surface of

the dermis by means of a camel's hair pencil, night and morning, the vesicating paper was again used, and cod-liver oil administered. This treatment was pursued for three months, at the end of which time the discharge had disappeared, although the power of hearing was not wholly restored.

Case 8.—*Chronic catarrhal inflammation of the dermis; great inflammation.*—Mrs. A., aged 30, consulted me in August 1856. She was in tolerable health.

History.—Two years previously she experienced at times great irritation and pain in the tube of each ear, followed by discharge: thinks that the affection was caused by a residence in a damp house: it was aggravated by exposure to cold air. Since the above period has had several similar attacks, and the ears are never quite free from itching and discharge. The power of hearing has not been diminished.

Upon *examination* the surface of the dermis in each ear was found to be denuded of epidermis, red, slightly tumefied, and covered by a mucous discharge. Each membrana tympani was healthy. The hearing was natural.

Treatment.—As there was evidently considerable congestion of the meatus, two leeches were applied to the margin of the orifice of each meatus, each ear being syringed with warm water, twice daily. In the course of a week, the congestion having much diminished, a solution of nitrate of silver (gr. 6 ad ℥i.) was applied to the surface of each meatus by means of a camel's hair brush, twice daily. Under this treatment, and the occasional use of the syringe, and warm water, the irritation subsided, and the discharge disappeared. The affection was, however, slightly reproduced by a continuance of damp weather, and by any causes producing a weakened state of health; but it speedily subsided under treatment.

In some cases where chronic catarrhal inflammation is allowed to proceed unchecked, the bone is liable to become diseased. These cases we shall consider when we come to speak of diseases of the brain arising from affections of the ear.

In *ulceration* of the dermoid meatus, the bone is usually diseased; the subject will be treated fully when speaking of the diseases of the bone and brain.

ORIGINAL COMMUNICATIONS.

ON THE EFFECT OF CHLOROFORM UPON THE RESULT OF SURGICAL OPERATIONS.

By JAMES ARNOTT, M.D.

The announcement of "death from chloroform," does not now affect the professional reader in the manner it originally did. He regrets the individual occurrence, but he finds consolation in the reflection that such casualties are rare, and that they are much overbalanced by the favourable influence exerted by chloroform on the results of operations. Though a few may die, he says, from the immediate or direct effects of chloroform, many are saved by its ulterior agency.

He judges of the first circumstance—the number of sudden deaths—by the small number of reports which reach him; of the second, by the statistical investigations that have been instituted to determine the question.

On the first point, however, he is very apt to be deceived. Scarcely a hundred instances of sudden death from chloroform have as yet been reported, but there cannot be a doubt that by far the greater number have been concealed.

In some remarks on this subject, two years ago, it was stated that, although five cases of sudden death from chloroform had taken place in the London Hospitals within the seven months preceding my publication, not one had been reported as occurring in the private practice of London during that period; and the same observation, it was stated, was applicable to a much longer time. Indeed, I am not aware that more than two cases of sudden death from etherization have been published as happening in the private practice of London since its introduction. This evident concealment is neither extraordinary nor reprehensible. What family is there that would not endeavour to the utmost to avoid the horrors of a coroner's inquest, and the consequent newspaper report, where, as happens in the case of death from chloroform, there can be no suspicion of foul play? Nor can we blame the practitioner who would gladly escape from a criticism of his proceedings on such occasions. Useful as such modes of publicity may be on other accounts, they do not, in this instance, promote the advancement of medical knowledge. But many die from the direct effects of chloroform and within a few hours of its administration, whose deaths are attributed to other causes. Dr. Mouat has recently drawn attention to such cases. He speaks of soldiers who were operated upon in the Crimea under chloroform, as gradually sinking under the peculiar state of nausea and depression which follows its use. "Reaction is never thoroughly established, the desire for food never returns, and the patient sinks as it were stealthily, and dies from exhaustion in from twelve to twenty-four hours." "These cases," he adds, "are far more numerous than is generally supposed, and many of them may fairly be termed 'deaths from chloroform,' but are never so returned (a)."

The second source of consolation on such occasions, we have said, is the opinion that the sudden deaths from chloroform are much overbalanced by saving property as respects the results of operations. It has been asserted, in reference to certain amputations, that if five cases were to be killed by the direct agency of chloroform in every hundred operated upon, there would still be a saving of life by its ulterior agency. This is a most important point, about which there should be no doubt. If the position that there is a saving of life upon the whole be incontestable, it ought, for the credit of the profession, to be brought more frequently forward, especially on such occasions as the recent inquest at St. Thomas's Hospital: if it be unfounded, the sooner it is contradicted the better. It is the purpose of this paper to renew the investigation of the subject.

The question whether chloroform saves life as well as prevents pain, can only be determined by statistics. To attempt to form a judgment from individual experience, would be scarcely less erroneous than to estimate the comparative proportion of the two sexes (now ascertained with such wonderful accuracy by the aid of statistics) by counting the males and females in the enquirer's own family. Nor would reasoning from the observation of the sensible effects on the system bring us nearer the truth. The absence of pain may be, and probably is, an advantage as respects the result of an operation, but it may be much over-balanced by the other effects of the anæsthetic; and the beneficial stimulus excited by chloroform may be followed by injurious prostration (b). On the other hand, poisonous and depressing as the drug manifestly is in some cases, it may still possess some hidden virtues conducing to recovery. Whatever its ulterior agency may be, as this produces no peculiar symptoms, it is by results alone that its nature can be determined.

The writer, whose inquiries on this subject have been most influential, is Dr. Simpson of Edinburgh.

About two years after the introduction of etherization, and when Surgeons were beginning to fear that the bad effects of chloroform might not be limited to the very time of its administration, but might seriously affect the results of operations, Dr. Simpson's statistical investigations respecting this point were published. They were prefaced by an ably written and lucid exposition of the value of statistics applied to this enquiry, which, with the manifest trouble he had had in collecting his materials, and the apparent care he had taken in arranging them, insured a ready and confiding reception to his investigations by the Profession. From that time all anxiety about the ulterior effects of chloroform seemed to cease, and Surgeons have continued to employ it without hesitation, under the conviction that, instead of there being a destruction of life as the price paid for the insensibility, a great saving of life is effected by it. The tables in which he condensed the results of his investigations, and which have just been reprinted in his collected works, have been as influential with Surgeons as the Northampton Life Tables have been with Assurance Companies.

As these tables represent the mortality from amputations to have been 29 per cent. immediately before the introduction of

(a) *Medical Times and Gazette*, September, 1856.

(b) The credit of a double advantage claimed for general anæsthesia, of preventing both pain and danger, is justly due to local anæsthesia from cold, and when used for other purposes as well as operations. Mr. Langston Parker, in his recent work on Cancer, speaks of our now being able to use caustic in its cure in consequence of the pain from it being removed by frigorific applications; but the prevention of erysipelas by intense cold is not of less importance, to say nothing of its own direct and efficacious curative agency in malignant diseases.

etherization, and 23 per cent. after its introduction, and as the inference from them is that there has been a saving of life effected by the change to the amount of 6 per cent. (a number doubtless far exceeding that of the sudden deaths which have taken place during the administration of chloroform). It is no wonder, then, that they should have been so often appealed to in discussions upon this subject, and that all theoretical objections to chloroform should have been refuted by them.

Nevertheless, these tables, when closely examined, are found to involve the greatest fallacies; they do not afford a particle of evidence that the introduction of chloroform has lessened the mortality after amputation.

The first, which professes to give the average mortality of thirty British Hospitals, should have shown the number of operations, and their results, at each of these Hospitals during precisely the same period of time; but, instead of this, while the period of observation, as respects the only large healthy hospital inserted in the list, is limited to two years, that of the large unhealthy hospitals of Edinburgh and Glasgow, the excessive mortality of which almost equals that of the Paris hospitals, extends to more than three times this duration. If an equal period of observation be taken to form this average, (excluding two of the small hospitals, one healthy and the other unhealthy, on account of the period of observation respecting them being uncertain), the table, instead of showing a mortality of 29 per cent., would show one of only 24; and, if other large healthy hospitals, like that at Bristol, had been included—such as the Liverpool Royal Infirmary, where (as appears from a published return) the deaths from amputation during three consecutive years were only at the rate of 6 per cent.—the average mortality of the whole would probably have been considerably less than 20 per cent.

The second table involves no miscalculation so palpable as that in the first, but it leads to conclusions equally erroneous. It gives an account of the number of amputations in which ether was administered, with the results; but what the character of the cases was in which it was used—whether the patients were healthy or worn out with disease—we have no means of judging. In all probability the best cases were generally selected, for only a few were returned from each hospital; and it was natural and proper that at first the best cases should be chosen for trial; not only those free from serious organic disease of the vital parts (a class which were long excluded), but those in which the reparative powers were most conspicuous; and a clearer proof that this was the case cannot be adduced than the fact that the etherized cases from the eight London hospitals inserted in this list, show a mortality of more than 10 per cent below that which (as we shall presently see) exists at the present day.

But as the prospect of recovery from amputation is good or bad according to the general health of the patient, and other circumstances, if we could always select our cases, the usual mortality would probably be reduced to less than a half. As it is, all the advantage which the 302 etherized cases appear by the table to have over the non-etherized 618 of the other table (admitting the returns to be correct), does not amount to more than 1 per cent. To prove that there was not actually a loss of life, instead of a gain, from etherization, there should have been, assuming that the cases were generally selected, a much greater difference than this. A percentage of 23 deaths from amputation in the English provincial hospitals, even supposing that every case was etherized, would indicate a great increase of the usual rate of mortality before the introduction of etherization.

Another objection to the reception of this table as an argument in favour of the indiscriminate use of chloroform, is, that it has reference principally to sulphuric ether as the means of producing anæsthesia, for very few operations had been performed under chloroform at the time of its publication. Now, chloroform, whatever other advantages it may possess over ether, has none as regards safety; and, what is of more importance in respect to this table, it has of late years been employed much more boldly than was formerly usual. Patients were then frequently only half intoxicated by the anæsthetic, and the intoxication was kept up but for a short time. A change in this practice had not yet been effected by the singular argument, that, because a patient labouring under convulsions may be kept for a long time under the full influence of chloroform apparently without injury, the same proceeding can be adopted with impunity in the case of a patient exposed to the long-continued danger of a large amputation wound.

We shall now proceed to the consideration of tables of a very different character from the above, as respects their construction, and which disclose facts of a very different import.

Although I had long felt convinced, from reflecting on the evidently poisonous character of chloroform, that the number of sudden deaths produced by it, whether reported or not reported, was by no means the measure of the whole mortality, I was unable to obtain satisfactory evidence of this. It was by statistics alone that this point could be determined, and I had no easy access to the repertories of the necessary facts preserved in hospitals. At last, my attention was directed to the Statistical Reports of Operations which have appeared for several years past in the *Medical Times and Gazette*, by a reference to them in Sir Benjamin Brodie's recently-published paper on Lithotrity. On examination, I found that these reports were all I could have desired. A monthly account is given of the whole of the operations during the last three years. Their accuracy is assured by the circumstantiality with which every case is mentioned, and by the fact, that they were not drawn up with a view to the settlement of any particular question in practice. The reporters of these statistics have been under no conceivable bias; they have been actuated solely by a desire to promote surgical science. If their returns have a fault, it is certainly not the over-statement of the mortality; for, almost every month, a large number of cases are mentioned as being still under treatment; and although the fatal issue of a few of these is afterwards reported, it is probable that other deaths have happened in consequence of the operation, but at too long a period after it to be known to the reporter or to be recorded by him. It might at first sight appear desirable to have reports for a longer period than three years, but were the period now extended, any such comparison as that we are now making between the results of operations, becomes imperfect or impossible by the advancing improvements altering the circumstances.

In the *Medical Times and Gazette* there are separate statistical reports both of the London and Provincial Hospitals; but I shall restrict my attention to the first, for the following reasons. The principal is, that the Hospitals in the provinces are too far apart, and differ from each other in too many circumstances, such as climate, site, and character of the patients frequenting them, to render it possible to form an estimate of their average mortality before etherization was introduced, from the very few published returns of the results of amputations in the Provincial Hospitals at that time. Another reason is that I am not sure that the administration of chloroform has been so universal in operations in the country as it has been for many years past in the metropolis. In London, on the other hand, there are many large Hospitals furnishing the requisite number of facts, and they are all under nearly the same kind of general management, Surgical practice, &c. We have authentic returns also of the mortality after amputations in some of the large London Hospitals before ether was introduced, from which, in consequence of the similarity of circumstances just alluded to, we can construct a sufficiently correct estimate of the general mortality for comparison with the present rate. The following table has been constructed from these returns.

Table I.

Showing the Average Mortality after Amputations of the Thigh, Leg, and Arm, in four London Hospitals before the Introduction of Chloroform.

Hospitals.	Date of Observation.	Reporter.	Primary Amputations.		Secondary Amputations.		Total.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
University College ..	1835—40	Mr. Potter.	8	3	50	7	58	10
St. Thomas's	1842—47	Mr. South.	20	7	29	6	49	13
University College ..	1841—46	Mr. Cadge.	7	4	38	10	45	14
Bartholomew's	1846	Mr. Haig.	8	1	14	3	22	4
							174	41

Percentage of deaths to cases (taking equal periods of observation), 21·9.

The great diversity which appears in the above Table between the two equal periods of observation at University College Hospital, is a striking illustration of what has been termed a run of good or bad luck in the practice of the same Surgeon, for Mr. Liston was the principal operator at the Hospital during both periods; and it shows, also, how unsafe it would be, unless for a very long period, to rely on any particular Hospital as a standard. The return of deaths from amputations at St. Thomas's is heavy, and I might have been justified in rejecting it as being of too private a nature to have the requisite authority; but, in order to prevent any cavil, or appearance of selection, it is retained; and, for the same reason I have omitted the only other return of amputations which I have been able to find, as respects the London Hospitals: objection may be made to it, because the mortality is much below the usual average. This return is from Guy's Hospital, and is mentioned by Dr. Fenwick in his elaborate paper on the statistics of amputation, in the *Edinburgh Journal of Medical Science* for 1847. The period of observation is from 1843 to 1845; the cases are 36, and the deaths 4, or at the rate of 11 per cent. Were this return added to the others in the table, it would reduce the average of the London mortality to less than 20 per cent, or one fatal result in 5 amputations.

The present mortality of the London Hospitals is shown by the following Tables, into which the several returns in the *Medical Times and Gazette* have been condensed.

Table II.

Showing the Mortality from Amputation of the Thigh, Leg, and Arm, performed under Chloroform in the London Hospitals during Eighteen Months, from June, 1855, to June, 1856, inclusive.

Hospitals.	Primary Amputation.		Secondary Amputation.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
St, Bartholomew's..	1	..	23	7	24	7
St. Thomas's	4	3	12	3	16	6
Guy's	15	10	34	3	49	13
London	11	2	13	4	24	6
St. George's	6	3	15	5	21	8
University College..	3	2	14	3	17	5
King's College.....	1	1	8	3	9	4
Middlesex.....	1	1	5	2	6	3
St. Mary's.....	5	3	12	3	17	6
Westminster	..	..	2	..	2	..
Charing-cross	1	1	9	2	10	3
Metropolitan Free..	..	..	2	..	2	..
Hospital for Sick Children	..	..	1	..	1	..
Seamen's	..	..	5	..	5	..
Marylebone Infirmary	..	..	1	..	1	..
Total.... ...	48	26	156	35	204	61

Table III.

Showing the Mortality from Amputation of the Thigh, Leg, and Arm performed under Chloroform in the London Hospitals during Three Years, from July, 1853, to June, 1856.

	Number of Cases.	Number of Deaths.
First Year..	144	57
Second Year	150	50
Third Year	136	41
Total..	430	148

Average percentage of deaths, 34·4.(a)

(a) Several sudden deaths were reported as happening from chloroform in the London Hospitals during this period, but none from its administration in amputations, though, in the account of cases in the journal, the fatal terminations are occasionally spoken of in such terms as these, "vomiting continued until death," "death from collapse followed," "sank from shock during the performance of a primary amputation," "sank almost immediately after artificial respiration and galvanism had been resorted to without success."

It appears, by comparing these with the foregoing Table, that the mortality in the London Hospitals has increased since the introduction of etherization from 21 to 34 per cent., or, to vary the expression, instead of amputation being fatal in a less proportion than one in 4 of those operated upon, it now proves fatal in 1 in 3. Is not so enormous a sacrifice of life too high a price to be paid for anæsthesia, even granting that this cannot be otherwise obtained with perfect safety? Is life to be held as nothing when compared to pain?

(To be continued.)

A SINGULAR CASE OF MIDWIFERY.

By FREDERICK HOBSON WARREN, Esq.

On the 30th of May last, I was summoned at half-past one, a.m., to attend Mrs. C., aged 28, in labour of her first child. And I should here state, that, until then, I had never to my knowledge seen my patient, a friend of hers having engaged me for her.

I was informed that pains had been for some hours regularly coming on, and that they were rapidly becoming more severe. On proceeding to make an examination in the usual manner, I was at first puzzled to discover an entrance to the vagina; and it was not until the recurrence of a pain, that I succeeded in introducing my forefinger to a small aperture immediately under the symphysis. Retaining it here, after a short lapse, a pain recurred, and I could feel the membranes borne onwards, the child presenting naturally, and the head very low.

It was, however, at once evident to me that there was something unusual about the external organs of generation, and in this I was confirmed by my patient exclaiming, "Oh, I ought never to have married," at the same time revealing to me the fact that she had sustained a great injury to the lower part of her person, from machinery, when a child ten years of age, and also reminding me, that I had attended her subsequent to her discharge from the Devon and Exeter Hospital, where she had been under the care of Mr. Barnes, for the injuries she had then received.

However, pursuing my examination, I found the labia entirely wanting, and their place seemed occupied by a hard, dense cord on either side, which offered an unyielding impediment to each uterine effort, and which I could trace, stretching upwards above the pubes, which was entirely devoid of hair, and in lieu of the mons, was thinly covered by a cicatrice.

During this, labour continued with increased force and rapidity, and finding the perinæum to distend, I began to think it would be impossible, under such circumstances, that a child could be born without some serious result to the mother. I therefore determined at once to divide these cord-like bands, hoping that thereby the parts would yield sufficiently, and room enough be gained to allow the passage of the child.

A very considerable advantage was immediately gained by this step, and the vaginal orifice lengthened thereby to the additional extent of an inch and a-half. But the uterine efforts now became incessant, and the consequent rapid advance of the child, left me no longer time to deliberate, and my sole attention was directed to the support of the perinæum.

At this time, 3 o'clock, a.m., the membranes gave way, and immediately after, while firmly supporting the perinæum, I felt a sensation in the hollow of my hand, as of a crack, a gush of blood directly followed from the vagina, and the next moment, I felt a tear of the perinæum, and the head of the child protruded *through* it, its body following in a few seconds.

I had now leisure to inspect the part, and found that the rent extended from the front of the rectum throughout to within an inch of the perineal fourchette, which, not torn, looked bruised and dark.

I removed the after-birth through the rent, and the labour was ended at 3.30 a.m.

Nothing occurred to detain me, and I left about an hour after. At 2.30 p.m., I found that my patient had enjoyed some refreshing sleep, and was tranquil and happy.

The perineal aperture had already much contracted, but at the time, I deemed it advisable to bring the surfaces together by the interrupted suture.

9 p.m.—In every particular doing well.

On the following day, I had the pleasure to find on examination that the bowel, with its sphincter, was uninjured.

I will not detail the subsequent treatment, &c., but merely state that the perineal surfaces, remaining in apposition without any union having taken place, I removed the ligatures a few days afterwards. The fourchette, much bruised during labour, had sloughed away, and this, coupled with the uterine discharges, precluded all chance of union, for the time. A napkin folded and applied as a support to the perinæum was all the treatment required.

No untoward symptom occurred at any time after. The lochial discharge ceasing, the wound rapidly healed, and at the latter part of July the whole of the perinæum had become firmly united, the vaginal orifice being such as to render apprehension for the future unnecessary.

In conclusion, I would refer back to the year 1837, when the subject of these remarks, being 9 years of age, was entangled in machinery, and terribly injured in various parts of her body.

Among these, the lower part of the belly was lacerated, in a transverse line, extending from a little way below the anterior superior spine of the ilium on one side, to the corresponding point on the other. The pelvis was not injured, but the external organs of generation were torn altogether away, or into shreds.

The cicatrization and subsequent absorption which must have taken place, causing the contraction and displacement of parts, afford a ready clue to the obstacles met with in this case, and it is matter for regret that this state of things was studiously concealed until the time had arrived and passed by for the adoption of preventive measures.

Her husband is rather diminutive in person, and this will perhaps account for his reply to my inquiry, *Facilis fuit Congressus*.

Exeter, October, 1856.

CASES IN PRACTICE, WITH REMARKS ON CLIMATE.

FORMS OF ILLNESS APPARENTLY INDUCED BY A HIGH TEMPERATURE.

By C. F. MOORE, M.D., L.R.C.S.I., etc.

(Continued from page 138.)

I THINK it unnecessary to add other cases in which severe symptoms succeeded exposure to strong solar heat; cases of fatal illness have been mentioned to me as having occurred within the tropics on board ship from excessive heat, without direct exposure to the sun, but such have not come under my own observation. I will now mention what I learned from two Medical Officers of the Honourable East India Company's Service on the subject of sunstroke. They had seen several cases in which the attack commenced while the patients were still exposed to the sun; in other instances they had been in their houses for a considerable time subsequent to exposure; occasionally slight convulsions occurred, stertorous breathing frequently.

Post-mortem appearances were seldom of a marked character; not uncommonly, however, there was congestion of the vessels of the membranes of the brain, and an excess of serous fluid (a).

One of these gentlemen, who had been long Regimental Surgeon in the Bengal Presidency, said he had very generally found pouring cold water on the head sufficient treatment with the natives of India affected with sunstroke.

In Dr. Duncan's Commentaries (1785), I find a letter from Dr. Dick, Bengal Artillery, describing, among other diseases of India, apoplexy from exposure to the sun as a very fatal disease, and that the men "complain first of a great headache, thirst, and some difficulty of breathing; in a few minutes vertigo and bilious vomiting come on, they drop down breathless, turn comatose, and, unless immediate assistance be given, the face swells and turns almost black; the pulse, which was at first full and quick, sinks; and after some hard struggles for breath, they expire. Removing them under the shadow of a tree, bleeding them freely in time, and giving them some water generally cures them; but, as the stomach and bowels are often overloaded with bilious or putrid matter, it is necessary in the evening to give them small quantities of tartar emetic in a saline mixture, which answers better than any other evacuant. Though they seldom require any other medicine, yet they are a long time unfit for duty after an attack of this kind."

Before making remarks upon the nature and treatment of the foregoing cases, I will give some particulars of a case of illness, apparently induced by excessive artificial heat, of which I have seen several instances (b).

Case 8.—On a voyage in the Mediterranean, September 27, 1852, in the steam-ship "Bentinck," John Kennett, aged 22, a fireman, strong and well made, who was formerly a farm-labourer, and never before at sea, was seized with giddiness while in the coal-bunkers, where the temperature was 140° Fahrenheit; he came on deck staggering like a drunken man. When I saw him his eyes were wild, pupils at first contracted; after a time they became dilated. He was delirious; pulse 90; violent action of the heart; cold perspiration; left side temporarily partially paralyzed. He had some aromatic spirit of ammonia and tincture of orange peel, in water, some sherry, and seven grains of calomel. His bowels had been very confined since coming to sea; his limbs becoming cramped, were well rubbed. In two hours after, he became violently convulsed, and required five strong men to hold him. I now bled him to sixteen ounces, and he had two drops of croton oil, and cold affusion to the head. The attack commenced about noon; at 9 p.m. his bowels acted freely.

September 28th.—Kennett was better, but very weak; pulse 90. A week after this he had a large abscess in the palm of the hand. The only note I made of the treatment of the abscess, which was followed by restoration to perfect health, was incision, poultices, purgatives, and porter.

From the foregoing cases it will be observed that, in many instances, persons attacked with the form of apoplexy, or train of symptoms generally known as sunstroke, as well as in illness induced by exposure to excessive artificial heat, had undergone considerable muscular fatigue, and that the symptoms showed the necessity of avoiding the popular custom of bleeding indiscriminately and at once all cases of the kind.

I will now make a few remarks on the general principles which, it occurs to me, should guide us in the treatment of such cases.

1. The symptoms of sunstroke and allied cases seem referable to nervous depression which may or may not be attended by cerebral congestion, and may be caused by exposure to excessive heat and breathing heated air, or in some instances by direct heat applied to the uncovered head. In some instances the temperature of the scalp has been found actually raised.

2. Plethora, excitement, excessive fatigue, and derangement of the liver and stomach and constipation seem to predispose to sunstroke, &c.

3. An individual once affected seems more liable to a recurrence of illness from similar causes than persons never so affected.

4. In some instances at least, the heart seems weakened by the general nervous depression (c).

5. The treatment must of course accord with the nature of the individual case, as to exhaustion, cerebral congestion, &c. The position, whether sitting, half recumbent, or with the head on the same plane with the trunk, should also be determined by the case. The judgment of the practitioner will be required in his choice of diffusible or other stimulants, of stimulating and purgative enemata, purgatives, depletion general or local, the use of external warmth or friction, cold to the head, and much care will be required in the after treatment in many cases.

16, Old Burlington-street, September, 1856.

(a) In the note which I took of the conversation I had on this subject, I regret that I omitted to state any further particulars if I had learned any.

(b) See also Vol. XII. *Dublin Journal of Medical Science*, 1851, where a somewhat similar case is given.

(c) Some have considered that the blood itself becomes of a temperature higher than natural.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING JULY, AUGUST, AND SEPTEMBER.

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seamen's Hospital.

LITHOTOMY.

Number of cases 6. Recovered 5. Died 1.

Case 1.—The Metropolitan Free: Mr. Childs.—A healthy boy, aged 3. A small oval stone was removed. Recovered without a bad symptom. *Case* 2.—The Middlesex: Mr. Shaw.—A healthy boy, aged 5. Stone the size of a bean. Recovery. *Case* 3.—Guy's: Mr. Cock.—A healthy boy, aged 3 years. Symptoms of stone fourteen months. Recovered. *Case* 4.—Guy's: Mr. Cock.—A healthy boy, aged 15. Symptoms of stone four years. Recovered. *Case* 5.—St. George's: Mr. Cutler.—A boy, aged 7, in good health. The stone was very large, and the rectum was lacerated in its removal. Recovered without a bad symptom. *Case* 6.—University College: Mr. Erichsen.—A man, aged 63, the subject of stone for 12 years. A mulberry stone, weighing ʒxv., was removed. Death, from exhaustion, on the sixth day. At the autopsy no inflammation of any organ was found. Both kidneys were disorganized by old disease, and in the left were three calculi.

LITHOTRITY.

Two cases, both old men, are under treatment, by lithotrity, in St. George's Hospital, under the care respectively of Mr. Hawkins and Mr. Tatum. Both are doing well. Further particulars will be given in the next report.

Case 3.—St. Bartholomew's: Mr. Skey.—A man, aged about 48, was admitted on account of stone in the bladder. He had the aspect of good health, and appeared to be a suitable case for lithotrity. In Mr. Skey's absence from town, the first crushing was performed by Mr. Hodgson, H.S. All seemed to be doing well for several days, and Mr. Skey was intending to repeat the operation. On the morning fixed, however, the man was out of sorts, on the next day a rigor occurred, and from that time he rapidly sank. Death took place about nine days after the operation. The autopsy showed recent disease of the kidney, but nothing further to account for death.

HERNIOTOMY.

Number of cases 23. Recovered 15. Died 8.

Case 1.—St. George's: Mr. Prescott Hewitt.—A man, aged 33, hernia congenital, large, strangulated two days. The sac was opened, and found to contain a large knuckle of much inflamed bowel, and a quantity of serum. Peritonitis followed. Recovered. *Case* 2.—The London: Mr. Critchett.—A man, aged 68, hernia scrotal, strangulated sixty hours. Sac not opened. Recovered. *Case* 3.—St. George's: Mr. Pollock.—A man, aged 34. Hernia femoral, of small size, strangulated twenty-four hours. Sac opened. Recovered. *Case* 4.—St. George's: Mr. Tatum.—An old woman, very fat, and of feeble health. Hernia umbilical, strangulated two days. The sac was opened, and found to contain a mass of omentum by which a small knuckle of gut was surrounded and enclosed as it were in a second sac. The omentum was excised, and the bowel returned. Recovered. *Case* 5.—St. Bartholomew's: Mr. Coote.—A woman, aged 30. Hernia femoral, strangulated twelve hours. Sac opened. Recovered. She had been operated on on the opposite side, three years before. *Case* 6.—St. Bartholomew's: Mr. Stanley.—A man, aged 42, hernia inguinal, strangulated two days; symptoms not severe. The sac was opened, and found to contain an unusually large quantity of fluid. Recovered. *Case* 7.—St. Bartholomew's: Mr. Paget.—A woman, aged 55, hernia femoral, strangulated two days. The sac was not opened. The ligament having been notched, the tumour was greatly diminished in size, but could not be wholly reduced. Recovered. *Case* 8.—St. Bartholomew's: Mr. Stanley.—A man, aged 54, hernia femoral, incarcerated 10 days, during which there had been constipation and occasional sickness. Sac opened. Recovered. *Case* 9.—Guy's: Mr. Cock.—A woman, aged 39; hernia femoral, strangulated nine hours; the size of a large egg. Sac not opened. Recovered. *Case* 10.—The London; Mr. Ward.—A woman, aged 39; hernia femoral, size of a large walnut; symptoms not very severe. Sac not opened. Recovered. *Case* 11.—St. Thomas's: Mr. Le Gros Clarke.—A middle-aged man; hernia femoral, strangulated four days. Sac opened. A portion of bowel was returned, and a piece of omentum left in the sac. Recovered. *Case* 12.—The London: Mr. Luke.—A woman, aged 68; hernia femoral, strangulated seventy-seven hours. Sac not opened. The bowels acted spontaneously, and she recovered without a bad symptom. *Case* 13.—Westminster: Mr. Hillman.—A male child, aged 16 months; hernia inguinal, not congenital, strangulated twenty-eight hours; symptoms severe. Sac not opened. Recovered well. *Case* 14.—Guy's: Mr. Cooper Forster.—A man, aged 35; hernia inguinal, of large size, strangulated twelve hours; symptoms urgent. Sac not opened. The wound united by the first intention, and he left the Hospital wearing a truss on the tenth day. *Case* 15.—Guy's: Mr. Forster.—A man, aged 38; hernia congenital, strangulated eighteen hours. The taxis had been abused, and the symptoms were urgent. The sac was opened. As the result, probably, of the bruising before admission the scrotum sloughed extensively, but the man did well as regards intestinal symptoms, and is now recovered. *Case* 16.—St. Thomas's: Mr. M'Murdo.—A woman, aged 40; hernia femoral, the size of a chestnut, strangulated five days. The sac was opened, and the gut found adherent to it. Death twenty-four hours after the operation. *Case* 17.—Guy's: Mr. Poland.—A woman, aged 38; hernia femoral, the size of an egg, strangulated four days. Sac opened. Death. *Case* 18.—Guy's: Mr. Cock,—A man, aged 21; hernia scrotal, strangulated "some" hours. He was suffering extreme pain, and the tumour was very tense and tender. The sac was opened, and the bowel found much congested, and perforated by a small ulcer beneath the seat of stricture. The perforation was sewn up, and the gut returned. Death from peritonitis occurred forty eight hours after the operation. No autopsy. *Case* 19.—Guy's: Mr. Cock.—A woman, aged 45; hernia femoral, the size of an egg, strangulated forty-five hours. Sac not opened. On the sixth day bronchitis set in, and subsequently passed into pleuro-pneumonia, and death occurred on the ninth day. No autopsy. *Case* 20.—St. Bartholomew's: Mr. Skey.—A man, aged 22; hernia inguinal, strangulated twenty-four hours. He was in a very low condition. The sac was opened, and the gut found in a very much congested, almost sloughing, state; it was, nevertheless, returned. The man lived ten days after the operation, sick almost the whole time, and taking only water. The bowels never acted. At the autopsy, the bowel was found to have given way into the abdomen. There was no stricture remaining. *Case* 21.—A very stout man, aged 55; hernia scrotal, of considerable size. The protrusion had been down several days before admission, and, during the two days after coming into Hospital the symptoms were ill-marked. He had no sickness, or other sign of strangulation, excepting constipation. The belly becoming tympanitic, and he appearing to be more feeble, it was at length determined to operate. In the operation, the sac was believed to have been opened, and nearly half-a-pint of fluid escaped from a large cyst. The finger now passed easily up into the abdomen, and reduction appeared to have been effected. No bowel had been seen. The symptoms of strangulation increased in severity after the operation, and death took place on the second day, At the autopsy, a knuckle of bowel, about two inches long, was found still in the sac, to which it firmly adhered in all parts. The bowel was almost gangrenous. It appeared that the opening by which the finger had been passed into the abdomen, was by the side of the external ring, and not through it. *Case* 22.—Guy's: Mr. Cock.—A woman, aged 70; hernia femoral, strangulated fifty-four hours, the size of a pigeon's egg. The operation was performed by the House-Surgeon, Mr. Valentine, in Mr. Cock's absence from home. Sac not opened. Death on the sixth day. The autopsy showed perforation of the bowel at the seat of stricture. *Case* 23.—St. Mary's: Mr. Walton.—A stout, healthy woman, aged 38; hernia small, femoral, strangulation one week. Sac not opened. Death from peritonitis

on the third day. The autopsy showed evidences of acute peritonitis.

TREPHINING, ETC., OF THE SKULL.

Case 1.—Guy's: Mr. Birkett.—A boy, aged 14, had been struck on the side of the head with a hammer. He was admitted with a compound fracture of the left parietal bone and quite insensible. Some portions of bone were removed and one elevated. Under treatment.

Case 2.—St. George's: Mr. Tatum.—A boy, aged 10, admitted on account of a compound comminuted fracture with depression. Some loose pieces were removed, and a depressed portion elevated; but it was not necessary to trephine. The dura-mater was not injured. The boy recovered well.

Case 3.—St. George's: Mr. Johnson.—A man, aged 28, was admitted on account of an extensive comminuted and compound fracture of the skull. He was apparently dying. An attempt was made by sawing away a projecting angle with Hey's saw to obtain the means of elevating the depressed part: but this, from the extent of the fractures, was found impracticable. The dura-mater and brain had been lacerated. Death took place a few hours after admission.

Case 4.—The London: Mr. Adams.—An Irishman, aged 40, was admitted on account of a compound fracture of the skull, sustained from a blow from a jigger. There was a small wound in the skin over the left side of the parietal bone, through which a portion of the skull, about a square inch in size, might be felt to be fractured and depressed. A small portion of cerebral substance was in the wound. There were at first only the signs of severe concussion, but in a few hours those of compression developed themselves. The pupil on the side corresponding to the injury became dilated and fixed, and there was paralysis of that side of the face, with stertorous breathing. No paralysis of the extremities. The seat of injury having been freely laid bare, the trephine was now applied by means of the elevator, a portion of bone, about a square inch in size, was removed. There was considerable bleeding during the operation. During the following night the man was conscious at times. On the following day purgatives were given, and the administration of mercury commenced. Subsequently he again gradually sank into coma, and death took place on the night of the third day. At the autopsy a large coagulum of blood was found between the dura-mater and the bone, and there was an extensive laceration of the brain-substance beneath. There was also a fracture across the base of the skull.

AMPUTATIONS.

Number of cases, 40; recovered, 21; under treatment, 8; died, 11.

Of the Thigh.—Case 1.—The Westminster: Mr. Holt.—A man, aged 30, in fair health, the subject of a popliteal aneurism, which threatened to give way. (See "Compressive treatment of Aneurisms,") Amputation. Recovery. *Case* 2.—Guy's: Mr. Cock.—A woman, aged 33, in good health, admitted on account of myeloid disease of the femur, involving the knee-joint; and of one year's duration. Amputation. Recovery. *Case* 3.—Guy's: Mr. Poland.—A man, aged 48, in good health. Primary amputation for severe compound fracture of the leg. Under treatment. *Case* 4.—Guy's: Mr. Cock.—A woman, aged 53, in very bad health. Extensive ulceration of the cellular tissue about the knee-joint of four years' duration. Amputation. Secondary hæmorrhage on the twelfth day. The stump was opened, and a vessel (not the femoral) secured. Recovery. *Case* 5.—St. Mary's: Mr. Lane.—A man, in good health, aged 30, admitted on account of chronic enlargement of the knee-joint, resulting from an accident two years and a-half ago. He had been under much treatment. The pain, etc., increasing, amputation was performed. Recovery. The synovial membrane was found much thickened, and the cartilages partially ulcerated. *Case* 6.—St. Mary's: Mr. Ure.—A boy, aged 7, in poor health, the subject of diseased knee, with open sinuses. His health failing, amputation was performed. Recovery. *Case* 7.—The London: Mr. Wordsworth.—A brewer's man, aged 38, admitted on account of a severe compound fracture of the tibia and fibula, with much contusion. Gangrene of the whole leg followed, and amputation in the lower third of the thigh was performed on the tenth day. Secondary hæmorrhage. Recovery. *Case* 8. The Marylebone: Mr. Thompson.—A woman, aged 32, the subject for three years, of diseased knee-joint. A portion of dead bone had been removed from the head of the tibia, ut the disease continued, and her health was failing. Amputation. Recovery. *Case* 9.—St. George's: Mr. Hawkins.—A woman, aged 35, the subject of old disease of the knee-joint. A relapse of inflammation had occurred, and abscesses formed. Amputation. Recovery. *Case* 10.—St. George's: Mr. Johnson.—A woman, aged 46, in fair health. Amputation of the thigh on account of a large malignant tumour connected with the head of the tibia. Recovery. *Case* 11.—St. George's: Mr. Pollock.—A man, aged 39, cachectic, and believed to suffer from disease of the stomach. He was admitted on account of compound fracture of the right tibia into the knee-joint. Primary Amputation. Under treatment. *Case* 12.—The Middlesex: Mr. Moore.—A lad, aged 12, in poor health, and but just recovered from pneumonia and pericarditis. A large abscess in the thigh communicating with the knee-joint necessitated amputation. Recovery. *Case* 13.—St. Thomas's: Mr. Le Gros Clarke.—A very delicate lad, aged 16. Amputation on account of diseased knee-joint of two years' duration. Doing well. *Case* 14.—St. Bartholomew's: Mr. Coote.—A lad, aged 17, under care on account of disease of the knee-joint, consequent on an injury with an axe six months before. Amputation. Doing well. *Case* 15.—The Middlesex: Mr. Shaw.—A lad, aged 19, had sustained a wound of the knee-joint twelve months before admission. He had, however, remained at work up to the last month. On admission the joint was full of pus, the lad being at the time in an almost typhoid condition. A month afterwards amputation was performed. Death on the fourth day. *Case* 16.—The Middlesex: Mr. Moore.—A man, aged 30, in an extremely low state. Amputation on account of destructive inflammation of the knee-joint following a wound. Death from shock shortly after the operation. *Case* 17.—The Marylebone Infirmary: Mr. Thompson.—A lad, aged 14, admitted some days after a kick of the shin, on account of acute periostitis of the tibia. Free incisions were practised, but the knee-joint became involved, and his health failing under the profuse discharge, amputation was determined on. It was performed one month after the injury. Improvement at first followed the operation; but he subsequently relapsed, and died exhausted, after a convulsive seizure, on the ninth day. *Case* 18.—Guy's: Mr. Hilton.—A man, aged 34, in poor health, who had been for some months under treatment on account of strumous disease of the knee-joint. Death seven days after the amputation from erysipelas and suppuration of the stump. *Case* 19.—St. Thomas's: Mr. Solly.—A strumous boy, aged 13. Amputation on account of acute disorganisation of the knee-joint following injury. Death on the eleventh day.

Of the Leg.—Case 20.—St. Thomas's: Mr. South.—A brewer's drayman, aged 36. Primary amputation on account of compound fracture. Doing well. *Case* 21.—The Middlesex: Mr. Shaw.—A man, aged 30, under care on account of strumous disease of the ankle of two years' duration. Amputation. Recovery. *Case* 22.—St. Mary's: Mr. Lane.—A man, of middle age, was admitted on account of a badly-united compound fracture of the leg. The injury had occurred thirteen months before. Open sinuses led down to diseased bone, and the suppuration was beginning to reduce the man's health. The deformity being very great, amputation was performed. *Case* 23.—St. Mary's: Spencer Smith.—A man, aged 37, phthisical and delicate, was admitted with a severe compound comminuted fracture of the leg, opening the ankle-joint. There had been profuse bleeding. Primary amputation. *Case* 24.—Guy's: Mr. Cock.—A man, aged 30, in good health. Amputation through the leg on account of strumous disease of the tarsus. Recovery. *Case* 25.—The Dreadnought: Mr. Croft.—A man, aged 34. Primary amputation on account of compound fracture. Hospital gangrene attacked the stump, and secondary hæmorrhage occurred. He suffered also from concussion of the brain, and was for fourteen days after the accident unable to recognise his friends; pupils dilated, etc. Doing well. *Case* 26.—The Marylebone: Mr. Henry Thompson.—A man, aged 48, the subject of chronic lupoid ulceration of the foot. The disease had existed from childhood, and had destroyed all the toes. Recently it had extended up the outer part of the leg, and had much reduced his strength. An artery of some size (probably the peroneal) was at length laid open, and a large quantity of blood lost. A second hæmorrhage occurring, amputation was

at once performed. Death from sloughing and haemorrhage on the fourteenth day. *Case* 27.—Guy's: Mr. Cock.—A man, aged 36, in good health. Primary amputation in lower third, on account of a severe compound fracture. He was doing well when, on the eleventh day, a rigor occurred. Pyæmia followed with pleuro-pneumonia, and death occurred on the twentieth day. No autopsy. *Case* 28.—The London: Mr. Adams.—A woman, aged 78. Primary amputation in the upper third, on account of compound fracture. The arteries were found ossified. Death from gangrene of the stump on the seventh day. *Case* 29.—St. Thomas's: Mr. Solly.—A man, aged 40, emaciated and enfeebled by long-standing disease of the lower end of the femur. Some carious bone had been removed from the part. Subsequently inflammation and disorganization of the left ankle took place, and amputation through the leg was performed. He gradually sank, and died on the 9th day. At the autopsy a sequestrum was found in the outer condyle of the femur.

Of the Foot.—Case 30.—The London: Mr. Wordsworth.—A man, aged 40. Primary amputation at the ankle-joint, on account of crushed foot. The malleoli were snipped off with forceps. Extensive sloughing of the flap, and cellular inflammation of the leg. Recovery, with a good stump. *Case* 31.—The Middlesex: Mr. Moore.—A man, aged 57, under care on account of diseased tarsus after injury. Chopart's amputation. Recovered. *Case* 32.—The Dreadnought: Mr. Tudor.—A mulatto lad, aged 18, admitted on account of the consequences of severe frostbite of the foot. Amputation by Pirogoff's method. The front and lower parts of the heel-flap were destroyed by Hospital gangrene. Death from pyæmia, with secondary deposits, ten weeks after the operation.

Of the Upper Extremity.—Case 33.—Guy's: Mr. Cock.—A man, aged 52, in good health. Primary amputation through the forearm, on account of crushed hand. Recovered. *Case* 34.—Guy's: Mr. Cock.—A man, aged 42, in good health, admitted on account of injury to the thumb. Hospital gangrene followed, and the carpal and wrist-joints were involved. The hand having been made quite useless, amputation through the forearm was performed six months after the accident. Recovered. *Case* 35.—The London: Mr. Ward.—A lad, aged 16, admitted on account of lacerated injury to the wrist. Hospital gangrene attacked the wound, spread up the forearm, and opened the wrist-joint. Strong nitric acid was applied, and when the sloughs separated, hæmorrhage from both the radial and ulnar arteries occurred. Amputation was now performed. The gangrene attacked the stump, and was only arrested by the free use of nitric acid. Now doing well. *Case* 36.—St. Bartholomew's: Mr. Paget.—A lad, aged 15. Primary amputation just above the wrist, on account of crushed hand. Recovered. *Case* 37.—St. George's: Mr. Johnson.—A man, aged 44. Amputation through the forearm, on account of a rapidly-growing fibro-plastic tumour in the palm of the hand. Recovered. *Case* 38.—St. Mary's: Mr. Lane.—A man, aged 36, in indifferent health. Amputation through the arm, on account of disease of the elbow-joint. Three years ago he had sustained an injury of the elbow, and recovered from a severe attack of consequent synovitis. Subsequently he went to work, and had another injury, after which it suppurated. Recovered. *Case* 39.—St. Thomas's—A man, aged 26, pale and scrofulous, the subject of disease of the elbow-joint. Amputation. Recovered. *Case* 40.—The Middlesex: Mr. Shaw.—A man, aged 44, in bad health. Amputation through the arm, on account of disorganization of the wrist and forearm by erysipelas and sloughing. Death on the third day.

Female Physicians.—Among the grants of the Massachusetts Legislature, is one of 10,000 dollars made some time since for the founding of a New England Female Medical College, and an annual grant of 1,000 dollars for five years, to endow scholarships in it. There are eight female physicians practising under a diploma in Boston, some of whom have a large and lucrative practice. There were 38 students in the Female Medical College last year, and eight have already graduated from this young institution. The legislative grant of 10,000 dollars was bestowed on condition of an equal sum being raised from other sources; a stipulation which is now nearly fulfilled, while it is known that divers legacies will accrue in course of time. Of the graduates who have entered upon practice, one can exhibit a register of nearly 700 births. Another has attended between 900 and 1,000.

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Medical Times & Gazette.

SATURDAY, OCTOBER 25.

SEWAGE DIFFICULTIES AGAIN.

If we return again and again to the unsavoury subject of London sewage, we must beg our readers to remember that it is a subject all the bearings and relations of which are not evident at a first glance. When old Samuel Johnson was engaged in the sale of Thwaites's brewery, he remarked to a friend, "Sir, this is no mere matter of tubs and vats, but we are dealing with the potentiality of growing rich beyond the dreams of avarice." So in the sewage question, it is not a mere matter of pipes and drainage. There are vast *potentialities* beyond. We are dealing with a question not only of getting rid of the sewage now festering under our houses—sewage which, even in the richest, most expensive, and most naturally healthy part of London, St. George Hanover-square, assails our noses and stomachs with insufferable smells from the gratings at the corner of every street—we are not only fighting against the pollution of the river Thames, nor yet against the creation of a gigantic nuisance at some part of the coast; but there are greater potentialities in store. There is the prospect of heightening the cultivation and fertility of large tracts of land; and, we may say, of improving their healthiness, for we believe it to be an undisputed fact that the best drained and most highly cultivated districts are the healthiest. There is the prospect of more work better pay for the country labourer, and a cheaper and more abundant supply of fresh agricultural produce for the town artizan. All these potentialities, with many more, social and political, hang upon the settlement of the sewage question.

In former articles we have insisted on the necessity of applying the sewage to the land, as the only safe, we may say the only conceivable mode of getting fairly rid of it. We have also quoted Mr. F. O. Ward's aphorism, "*all the rainfall due to the river, and all the sewage due to the soil,*" and shown how necessary it is, to separate mere rainwater from house sewage. The house sewage is a constant quantity, uniform from day to day, and may be estimated pretty accurately by the quantity of water supplied to the houses every day. The rainwater, alas! is but too inconstant. "It never rains but it pours" is a proverb particularly to be kept in mind in discussing the present matter; for if conduits are to be constructed at all, they must be capable of carrying off the greatest quantity of rain-water that can fall in the shortest time; hence they must be of a size utterly disproportionate to the quantity of

sewage that would trickle through them regularly; hence the expenses of construction are enormously increased; and if the sewage is really to be carried down to the sea, a considerable quantity of valuable water is lost to the Thames. Moreover, it is the conjunction of rain-water with sewage-water which makes the latter such a nuisance. Were it not for this, there would be no need of the gulleys which offend our noses at every street corner, and the sewage might pursue its course in secret to its destination, without even a vapour coming to the surface.

Now let us call attention for a moment to the proceedings of the Metropolitan Board of Works; the central body elected out of the rate-payers, to whom Parliament has confided the duty of "preventing all or any part of the sewage within the metropolis from passing or flowing into the river Thames in or near the Metropolis;" which work is to be completed by the 31st December, 1860.

One-fifth of this valuable time has now passed, and not only nothing has been done, but nothing has been begun, and no scheme is yet agreed upon, nor seems at present likely to be. And this we regard as a most fortunate thing for the public. When the Board commenced its operations, the doctrines which found favour with its architects and engineers, men of repute and solidity in their way, were not those which we advocate. Huge tunnels were to be constructed, to intercept sewage and rain at certain levels, and to pour them into the Thames a few miles below London. But the inhabitants of the towns and villages down the river would not allow themselves to be poisoned to spare the Londoners; moreover, it was discovered that the point selected for the discharge of the sewage was one from which it would return, more or less, at every tide, into the very heart of the city. So this scheme met its *coup-de-grace* at the hands of Sir Benjamin Hall. Then came propositions for conveying the Sewage further down the river. The last plan, we believe, was for taking it to *Halfway Reach*, a part of the river from which it is stated by its promoters that it would not flow back into the Metropolis, *except on occasion of heavy storms, which occur from twenty to thirty times per annum, and that then it would be very diluted.* But we need scarcely tell our readers, that the pollution of the Thames within the Metropolis even twenty or thirty times a-year, and the possible deposit of offensive mud, would not carry out the intentions of the Legislature, nor be sanctioned by Government. It would not do to squander two millions on an imperfect measure. Among the various schemes proposed, there is mention made of a huge tunnel to be constructed under the Thames, for the purpose of conveying the sewage from the south side of London to the north. Huge pumping works form a part of this project. Another scheme, which we hope will meet with every conceivable opposition, contemplates the erection of works for deodorizing part of the sewage, and so turning it into the Thames above London.

The great consolation remains, that some of these foolish and wasteful schemes are impracticable; others will not be tolerated by the community. Mr. Carpmael, and Mr. Leslie, leading members of the Board of Works, seem to admit that it will be impossible to construct any works whatever for thoroughly diverting the sewage from the Thames, so long as the sewage and rain are mixed. We do not regret a twelvemonth's discussion, if it have but produced this admission. Then we hear of petitions from the Essex farmers, to be allowed to take some of the sewage in its course to the sea. Then comes Mr. Mechi, and proposes a very easy bit of arithmetic. If a farmer finds it worth while to pay £50 per annum for the sewage of 8000 persons at Rugby, what would Middlesex farmers pay for the sewage of 2,500,000 persons in London. In fact, public opinion is happily setting strongly in the right direction; and we strongly urge our Medical readers to help in the good work, by every means, public or private, within their power. Let all the rain-fall go to the river, and all the sewage go to the soil.

THE WEEK.

Is there no safe middle course? Must we die of Cholera or live in a Gas Work? Must we enjoy the pleasures of existence in pure air harassed by fears of death and disease, or live "immortal in a perpetual stench," glorified by the phosphorescent gleams of putrefaction? Are we to establish a sanatorium close to the City Gas Works? or in which of the very consistent arguments made by the Gas Company in their defence are we to confide? Are we to believe first, that no stench whatever proceeds from their works, or secondly that there are stenches, but that these stenches, so far from being offensive and noxious, are remarkably pleasant and wholesome? Is coal gas the only real and true specific for Cholera? On which of Mr. Borlase Child's arguments are we to rest our faith? Are gas works absolutely necessary to maintain the City Police Force in health? Do his statistics show the necessity of improving "the public health by the suppression of all nuisances calculated to injure it," or as he says "point even to an opposite conclusion"? Is it true that bad smells are nuisances which ought to be abated, or is this a mere "conjecture of Medical theorists"? Are we to be satisfied with the report of Drs. Taylor, Hofmann, Brandt, and Warrington, that the arrangements of the City Gas Company for preventing the escape of noxious effluvia are the most perfect to be seen in any Gas Works, or are we to say, "If with these very beautiful and perfect arrangement you cannot prevent this escape, begone to some less crowded locality"?

At the last weekly meeting of the St. Saviour's Board of Works, the Medical Officer of Health presented a Report, in which he advanced the opinion, that the great mortality among children in London arises from the general sale of impure milk. The fact of the great infant mortality in our metropolis is generally admitted, and the cause thus assigned for it may possibly have some share in producing it. At any rate it would be desirable that the supply of cow's milk should be subjected to strict supervision on the part of the sanitary authorities. The adulterations of milk are not of a very complicated character, as the chief deterioration to which it is subjected is the addition of water. The prohibition of this diluent, and the care of the health of the cows, might well be entrusted to a Sanitary Police.

One of the parochial Surgeons of Marylebone has actually given a certificate of "Death from Destitution." Mr. Tubbs, the Assistant Overseer, is indignant at such an act of temerity. The worthy representative of Bumbledom goes even further. He not only accuses Mr. Muskit of conniving with the summoning officer in "getting up inquests," thus "bringing odium on the parish," but he says—"Medical men have no right to give such certificates as 'Death from Destitution,' for he considered they had no right to judge of a non-medical fact." This is really too good to be lost.

We regret to observe that the cholera has extended its ravages to the Cape de Verd islands. Recent accounts state that at St. Vincent, out of a population of 1200, no less than 640 had fallen victims to an outbreak of this epidemic. It is a remarkable fact that the western coast of Africa has hitherto been exempt from this destructive scourge; but the close proximity of these islands to some of our colonial possessions may ultimately lead to the diffusion of this pestilence, should not sanitary precautions be at once strictly established. It is to be hoped, therefore, that the Civil and

Military Medical Staff in our African colonies will take immediate measures to represent to the authorities the necessity of efficient steps being taken to diminish communication with the infected ports, in order to check the introduction of this disease. Fortunately for the interests of humanity, the chief of the civil staff in Sierra Leone, the Inspector of Health and Shipping, is an officer, whose long residence, high Professional attainments, and great practical experience in the treatment of endemic diseases render his services peculiarly valuable at this critical juncture. The urbanity of manners, considerate kindness, and unvarying hospitality, exercised not only towards his Professional brethren in the army and navy, but towards all his fellow-citizens, have deservedly gained Mr. Deane an ample share of public confidence, and have made his name well known throughout all the civilized communities of Western Africa.

A man has been charged at one of the Police Offices with the murder of his wife, by the administration of sulphate of potash. Some years ago, a person was tried at the Central Criminal Court for poisoning a woman with the same salt; but, although it appeared that death was really due to the irritation caused by a large quantity of the sulphate, the prisoner was acquitted. It would appear that an opinion prevails among some of the lower orders that sulphate of potash produces miscarriage, but it is difficult to understand the grounds of this opinion. The drug, although once called *Sal Polychrest*, from its supposed possession of many healing virtues, is now believed to exert very little influence upon the human system, and is used only as an ingredient of the Dover's powder, in which it appears to promote the subdivision of the ipecacuanha and opium. No doubt, if the sulphate of potash were given in very large quantity it might become a poison, as might Epsom Salts or Glauber's salt; and if it should be proved that the death of the person, whose case is now under investigation, were really due to the administration of sulphate of potash, it will show the difficulty which exists in determining what substances are, and what are not poisons, in the true sense of the word, however clear the legal definition may be. Since the above was written, a verdict of *felo de se* has been returned, and the woman buried by torchlight by Coroner's order.

The public will have deep cause of regret if a spirit of niggardliness shall take possession of the parties entrusted with our sanitary weal. We observe that something like a conflict is at present going on between the City Commission of Sewers and the New River Company, as to the supply of Water for the irrigation of the public urinals. These urinals comprise 69 compartments, and the Engineer of the Commission estimates that they are used by at least 30,000 persons daily, or 11 millions in the year. For keeping these places properly irrigated during 16 hours of the day, the demand of the Company would be £604, and at this sum the Commission stand aghast; but, on the other hand, it appears that each of these 69 compartments consumes a gallon of water per minute: this would give a consumption for the year, at 16 hours per day, of over 24 million gallons, for which the Company ask 6d. per 1000 gallons. Is this an exorbitant charge? The New River Company is a trading Company, and, as such, has a right to be considered in the same light as any private trader.

There is more than meets the eye in the proposal, recently ventilated in the *Times*, to plant the principal streets of our cities with trees. They would not only help to free the air from the excess of carbon, but from the ammonia the recent researches of Dr. Richardson have shown to be constantly emanating from animal bodies. If his calculations be correct, some three or four hundred tons of carbonate of ammonia are evolved every year by the inhabitants of this metropolis. Plants require as steady a supply of ammonia as they do of carbonic acid, and in the midst of luxuriant vegetation the putrid emanations from the dung-heap and cesspool are rendered innocuous. If the ammonia generated in our cities is not freely dispersed by currents of air, or made use of by the vegetable world, the air is contaminated, and the blood of those who respire it is brought into the precise condition observed in those who are afflicted by the low fevers so peculiarly prevalent in crowded filthy localities. Let us have trees and shrubs, then, by all means, wherever we can find room for them; and if we do not get the smoke nuisance abated for the sake of our own lungs, perhaps we may do it for the sake of the trees.

Medicine is in so flourishing a state at the Antipodes as to be able to start a Journal, containing Original Communications, Hospital Reports, Leading Articles, and other usual contents of a periodical Medical publication. We have just received a copy of the *Australian Medical Journal*, which is published at Melbourne, and is to be continued quarterly. It is produced under the superintendence of the Medical Society of Victoria, which now numbers about seventy members. We are happy to record the appearance of our new contemporary, and heartily wish it success.

A most unfair verdict has been returned by a Coroner's Jury, blaming the officers of King's College Hospital for inattention to an unfortunate woman who was taken there in a state of exhaustion. It appears, from the Secretary's statement, that she was kept in a ward while inquiry was made if she could be received in a parochial infirmary, and was sent in a cab to this infirmary as soon as the answer was received. Whether stimulants should or not have been administered seems to be an open question.

We announce, with pleasure, that a circular has been issued from the General Board of Health to many members of our Profession, inviting their opinions upon some points relating to Vaccination which have lately been raised in the House of Commons. Conscious that truth must ultimately prevail, we rejoice that the gauntlet is thrown down to the enemies of Vaccination, and anticipate the answer which will reach the Board of Health and the Legislature upon this most important and vital topic; and we confidently anticipate that the Vaccination Bill will now speedily pass into a law, if the members of the House of Commons be not deaf to the voice of reason, and indifferent to the interests of humanity.

Royal Infirmary of Edinburgh.—Mr. Lister has been elected Assistant Surgeon to this Infirmary. His opponents were Mr. Edwards and Dr. Watson. There has been a good deal of correspondence in the Edinburgh papers, and complaints that family influence rather than merit assisted Mr. Lister in procuring his appointment. But a correspondent, well acquainted with the whole proceedings, writes as follows:—"Of course there is no doubt about Mr. Lister being Mr. Syme's son-in-law, or that Mr Syme's influence has very materially assisted him in procuring his appointment. But then Mr. Lister is himself a very good man, has been House Surgeon not only to University College, but also to the Edinburgh Royal Infirmary, and in every respect is well qualified for the appointment. Mr. Edwards would doubtless have filled the appointment equally well, if not better. He had been Mr. Fergusson's assistant and is now Demonstrator of Anatomy in the University. His testimonials were first rate, and he is a very good operator, as I can myself testify, after repeated opportunities of seeing him use his knife. Dr. Watson, the third candidate, was poor Richard Mackenzie's house-surgeon, and has since been in the Crimea. He too is a very good man. I should say that never have they had three better men competing."

OUR GREAT ONES OF THE PAST.

MEN OF THE BRITISH SCHOOL.

WILLIAM CHESELDEN, F.R.S.

For some centuries past, or thereabouts, the London world has never been without its *one* operating Chirurgeon. Other Chirurgeons have, it is true, existed:—Chirurgeons of all varieties under the reigning sun, but these all second to the *one*.

Not very remarkable this fact to those who look at human life and nature as it is; to those who see that all thought is a grand hypothesis; that all subjects and all men are computed and judged of by what seem to be their relatives, and that the world in its judgments formed thus relatively, is sometimes right and sometimes wrong, and now and then extreme both in right and wrong, yesterday making a great quack a great man, and to-day making a great man a great quack, yet both yesterday and to-day doing homage through its idol to itself and its own opinion.

Do not let any one suppose that we are going to find fault with the world. Facts *versus* faults. Who shall call that a fault that pertains to all, and to the fault-finder most appropriately of all? Nature gives us no other mode of computing but by relatives; our languages are made of relatives, and one syllable may have concentrated in itself a thousand meanings, *i.e.* relations. As we proceed with the tasks now before us, we shall indicate, without effort or design, how in biography the relative argument rules everywhere.

Now again to the Chirurgeons. The great London Surgeons who, by virtue of the relative argument, have been the leaders in this metropolis, have all had much in common in the way of mental faculty. There is a standard for great Chirurgeons, and the men who have filled the position are as much alike mentally as two horse-guardsmen are physically.

The mental attributes of the standard Chirurgeons have been limited in number, but marked in kind. Of those higher qualifications of mind, out of which many of the great truths of the Universe have in the fulness of time been revealed, these men have presented no trace. They have rather tried to shoot down deep philosophy. They have had their own spheres, and no men have kept so closely to their spheres. Their fame has been founded on two or three mind traits at the most. First, and far a-head of all other traits is courage; courage in its every phase, the reckless, the cool, the breathless, the refined, the bulldog. Secondly, a fine mechanical hand; a quick, perfect, experienced eye. Thirdly, a talent for details, in which the whole man is absorbed. The roll of a bandage, the curve of a knife, the character of a thread, the eye of a needle, to these and their similars, whole volumes and half lives have been devoted.

It is, we say, on these qualities of mind in their clearest isolation from the contemplation of the supreme laws of nature that the great operator of the past has based his reputation. We have excellent operators still; but operation work falters; has sunk into that encroaching system which was once called sneeringly "physic practice;" the glory of the knife is departed. One regret attaches to this change of principle and action. We lose in the change a race of men of marked type. Men of true character. Men who worked in a sphere which they knew right well, because they worked in none other; who did what they did like men, whether to do were to kill or to cure; who kept the public staring in admiration at a Profession that could produce such types of masculinity; who fathered anatomy; who invented many useful devices in their own art; who by their high honour, integrity, devotion to their studies and pursuits, and by their universal appeals to the eye, and through it direct to the mind, formed a close alliance with the world.

In the latter part of the reign of Queen Anne, during the whole reign of the First George, and to within six years of the end of George the Second, the one Surgeon who thus represented his class in London life was William Cheselden. He was born on October 19, in the year 1688, at the little village of Somerby, in the county of Leicester. The house in which his birth took place, though in the parish of Somerby, is full two miles from the village, and forms, indeed, one of the last houses in the street of another village, called Burrow-on-the-Hill. The house is standing, and the curious visitor is to this day shown the very room in which our Surgeon drew his first breath. It is a fine old house, and is still in fair preservation. Within half-a-mile from it, is the famous Burrow Hill, the grandest remains of a Roman encampment left in this kingdom. Visiting this house three years ago, we found it occupied by a shepherd, or farm-steward, who had a son in shape of a neglected poet, and who showed us Cheselden's room with great unction. "He was Surgeon to the Queen," said the guide, "first Surgeon to the Queen; and in that room he was born." "What Queen?" we asked, for the sake of a question. Ah, that the guide "didn't know, but it could not have been Victoria. Certainly not."

The ancestors of Cheselden were of good descent. They were from the adjoining county of Rutland; and one William Cheselden, a relative of the Surgeon, and residing at Ridlington, in Rutland, was high sheriff of his county about the time when our great Cheselden was at the zenith of his fame. Another relative, who was in the Medical Profession, was Dr. George Cheselden, of Leicester.

Of the early education of William Cheselden but little is known. He received a classical education, and it is probable that he commenced his professional career as a pupil of Mr. Wilkes, a practitioner of great repute in Leicester in the beginning of the eighteenth century; but this is not certain. However, in 1703, being then only fifteen, we find him in London. There lived at this period in the metropolis, Cooper, a distinguished anatomist, and to him Cheselden was sent as a house-pupil. His studies were here pursued with great vigilance, and in 1710, being then 22, he commenced giving readings in Anatomy, and drew up a syllabus of Anatomy.

He had meantime studied Surgery under Ferne, then first Surgeon to St. Thomas's Hospital.

In the month of March, 1712, he presented his first paper to the Royal Society. A Roman urn had been dug up in the site of the old Roman encampment at St. Albans. The urn was inscribed Marcus Antonius, and contained the remains of a man of extraordinary size. The bones were delineated and examined by Cheselden, and the drawings and description comprised this first seientific contribution. The paper occupies but the third of a page in the "Transactions" of the Society. The dimensions of the parts of this skeleton are thus given by the Author.

"The circumference of the skull, according to its length, is 26 inches; and according to its breadth, 23 inches. The greatest diameter of each os innominatum is 12 inches.

"The left os femoris is 24 inches long, having only one, and that the great trochanter. The right os femoris is 23 inches long, having three trochantic processes. Each tibia is 21 inches long. If all the parts were of due proportion this man must have been eight feet high." (a)

Very soon after this, before the close of 1712, Cheselden was eleeted a Fellow of the Royal Society, and in the following year he sent to the Society another paper with illustrated drawings. His descriptions in this paper are pathological; for in those days the Royal Society was the only medium for such communications. The paper, which is entitled, "Some Anatomical Observations," includes—

1. A brief history of the heart of a woman who died of dropsy, and in whose aorta, at the semilunar valves, existed two chalk stones. The left ventricle was dilated. The stones the author infers were the cause of the dropsy.

2. A bone from the falx of a man who died of violent headaches.

3. A bone from the septum ventriculorum of a man who died hydropic, with the pericardium adherent.

4. The right optic nerve wasted and discoloured.

5. An illustration of flattening of the optic nerve from the pressure of the brain, the ventricles of which were filled with lymph.

6. An instance of three spleens taken from one body.

7. Two spleens from one man.

8. Two spleens from a woman. All these spleens had proper vessels, and the whole of the spleens in each case were but equal in size to the one usually met with.

9. A heart with the vena azygos inserted into the right auricle, and the descending eava coming round the basis of the heart, above the aorta and pulmonary vessels, to enter the auricle, with the ascending cava.

10. A ureter, double two-thirds its length next the kidneys, and distended by stones pressing through it.

11. The Fallopian tubes in impermeable state.(b)

In the eourse of this same year, 1713, Cheselden brought out his first treatise. He had, as before said, drawn up a syllabus of anatomy. He now presented his Anatomy of the Human Body, adding the syllabus to the end of it. His reputation already high, was greatly enhanced by this work, which ultimately went through eleven editions, and was accepted for many years as the Anatomist's *vade-mecum*. It cost five-shillings, was dedicated to Dr. Richard Mead, and bore on its title-page, a quaint motto from Spenser:—

> "Of all God's works that do this world adorn,
> There is not one more fair and excellent
> Than is man's body, both for power and form."

The "Anatomy of the Human Body" was not intended for minute anatomists. "I have pretty much neglected," says its author [prefaee to fourth edition], "the minutiæ in Anatomy; nor have I been very particular about those things which cannot be understood without being seen, and being seen, need no description; but have endeavoured to be more explicit about those which are of greatest use in Philosophy, Physic and Surgery."

This promise Cheselden kept, and although a student of this day would find but little help from him, yet the book was in its day vastly superior to anything before it, and the fact, that in bringing out the fourth edition, the plates of the previous ones were found to be worn out (from three to four thousand copies having been printed from them,) indicates the popularity of the work. It was the author's endeavour to make it indeed more than a mere descriptive treatise; he gave various physiological facts and theories and even supplied cases of disease to illustrate particular views.

His physiological views were plain and common-sense, but not original. His review on the process of digestion was perhaps the best in the work. He here destroyed effectually Pitcairne's views on the mechanical or muscular force of the stomach—("computed to be equal to a 117,088 pound weight") —as the eause of digestion, and concluded by saying, that "digestion is performed by a menstruum, which is chiefly saliva, assisted by the action of the stomach, by the abdominal muscles, and by that principle of corruption which is in all dead bodies; for digestion is no other than the corruption of our food, and, therefore, quantities of hot spirits, which hinder the corruption of animal bodies, hinder corruption."

From this period, Cheselden's brilliant profcssional career was fully commenced. He was soon made Surgeon to St. Thomas's Hospital, having been elected in the place of his former teacher, Mr. Ferne.

In 1717-18, as it would seem from Cheselden's account, Dr. James Douglass read a paper on "The operation for stone by the high method at the Royal Society." This paper does not appear in the "Transactions" at that time, though another paper from the brother of this author, John Douglass, does appear in the "Transactions" for May, 1722, Vol. XXXII., p. 83. Cheselden's mind was now turned tot his mode of operation, and, in 1722, he eommenced to cut for stone by the high way, following, in this respect, in the steps of De Franco and John Douglass beforenamed.

The success which attended this operation in Cheselden's hands was eonsiderable; and, having eut nine patients with success, the operation became exceedingly popular. He was, indeed, now so well known, that Dr. Stukeley, in writing his "Prospect of Vernometum, or Burrow Hill from the Leiccster Road," inscribed it to "Willo Cheselden, Chirurgo Peritissimo Amico."

In 1723 he published his work on the High Operation for Stone, prefacing it with an account of a lateral operation as performed by Professor Rau of Leyden, who took the hint of the lateral operation from the famous Frere Jacques. Cheselden's history of Rau's operation was imperfect, being derived mainly from the statements of students of the Leyden Professor who had seen the operation performed.

In 1725 a treatise appeared anonymously, entitled, "Lithotomus Castratus; or, An examination of the Treatise of Mr. Cheselden." A severe critique, in which Cheselden is unjustly accused of plagiarising from Dr. Douglass. This critique was judged to have been written by Dr. Douglass himself, but there is intrinsic evidence that it was done by John Douglass, a Surgeon, and brother of the Doctor, a man of a much more inferior east of mind, aud whom we shall meet with again. This attack did Cheselden no injury.

In 1725, Albinus, the distinguished successor of Rau in the University of Leyden, published an accurate history of Rau's lateral operation; for it is remarkable, that Rau himself left this labour undone, so that his operation would never have been known but for Albinus.

Albinus, immediately on its publication, sent a copy of his work to Dr. James Douglass, who at once laid an abstract of it before the Royal Society. From that time Rau's operation exeited great attention, and on the 7th of August, 1726, Dr. Bamber made the first trial of it on the living body at St. Bartholomew's Hospital. A few days later Cheselden did the same at St. Thomas's, but in a modified way, viz., by filling the bladder first with water, leaving the eatheter in, and then cutting on the outside of the eatheter into the bladder. He was enabled thus, in cases where no accident happened, to perform the whole of the operation in a minute, and with more ease than in any other way.

Ten patients having, however, been thus operated on, and four of these dying, he tried the plan adopted by M. Rau, without modification; but the same want of success being met with, he ultimately invented that lateral operation by which his name bceame so well, so widely, and so long known. His first new operation was performed on Mareh 27, 1804. The success which followed marked a supposed era in surgery, and twenty-seven patients operated on in succession all recovered, a result never before heard of.

In 1730, in the fourth edition of the Anatomy Book, Cheselden added an Appendix, describing this new operation, and as his mode of operating has often exeited discussion, it

(a) Phil. Trans. Vol. XXVI. p. 436.
(b) Phil. Trans., Vol. XXVIII., p. 281.

will be satisfactory to follow him by giving his own description :—

"This operation I do in the following manner. I tie the patient as for the greater operation, but lay him on a blanket several doubles upon an horizontal table, three foot high, or a little more, with his head only raised. I first make as long an incision as I well can, beginning near the place where the old operation ends, and cutting down between the musculus accelerator urinæ and erector penis, and by the side of the intestinum rectum. I then feel for the staff, and cut upon it the length of the prostate gland strait on to the bladder, holding down the gut all the while with one or two fingers of my left hand. The rest of this operation is done the same as in the old way ; but in this way there being often small vessels, I always tie them with a ligature, passed under them by the help of a crooked needle."

The flow of practice now continued in full current, and our operator went on with fortune in full favour until 1828, when he favoured the Royal Society with a communication which, when published, set all Europe by the ears. This document included the history of an operation for couching, and was entitled, "An Account of some Observations made by a Young Gentleman who was born blind, or had lost his sight so early that he had no remembrance of ever having seen, and was couched between thirteen and fourteen years of age." The fame of this operation was such, that to Cheselden has often been falsely attributed the merit of inventing the very old operation for the cure of cataract. But the true marvel of the case lay in the circumstance that a youth, old enough to think and describe, and who had never seen, described the sensations of learning to exercise sight. The history of the case was painted with a skilful and artistic hand, and some have imagined the picture to have been overdrawn. Whether this be or be not true, the sensation it created was immense, and it excited metaphysical as well as scientific discussions. The case is so well known, and has been so often reprinted, that we do not give it in full. It will be found in the Philosophical Transactions for June, 1728, Volume XXXV. p. 447.

The operation for couching, although thus generally received, was, however, attacked by some ill-informed writers, one of whom did not scruple to criticise it in a book entitled, "A New Method of Recovering the Sight by putting out the Eyes."

In the same volume of the Transactions (page 451) will be found another short paper by Cheselden on an operation for closure of the pupil, "in cases where there is either a total closure of the pupil or when the pupil is extremely contracted, and the inner edges of the iris growing to a cataract or part of a cataract after couching." The knife used for this operation was edged on one side only ; it was thrust through the sclerotic coat, and then forwards through the iris, the edge being turned to the iris. In drawing it out, the slit or artificial pupil was made.

In this year Cheselden was made Surgeon to Queen Caroline, and in the following year (1729) he had the honour of being elected a Corresponding Member of the Academy of Sciences in Paris, and may be considered as having reached the meridian of his career. His position was unexceptionable. He was First Surgeon to the Queen Wilhelmina Caroline, First Surgeon of St. Thomas's Hospital, and Consulting Surgeon to the St. George's and Westminster Infirmaries. In this year he gave up the laborious duties of teaching anatomy, having lectured for twenty years with a success unparalleled.

His reputation on the Continent was as great as in this country. M. Morand, an ingenious lithotomist of Paris, and a Member of the Academy of Sciences, came over to London expressly to see him operate ; and so many various descriptions of his mode of operating were published, that Dr. James Douglass, with Cheselden's assistance, brought out a treatise specially devoted to a description of the Cheselden plan, "his operation, and his whole operation."(c)

Among other Parisians who also visited Cheselden and saw him operate, was one who afterwards, in 1757, wrote an Eloge to him in the "Mémoires de l'Académie Royale de Chirurgie," and who in so doing took the trouble to obtain some biographical facts from the Cheselden family. At one operation for stone, at which this writer was present, Cheselden went through all the stages of it in fifty-four seconds. He afterwards gave his visitor the particulars of his method, on the condition that he should not communicate them until they had been laid before the Royal Academy of Sciences in Paris. The Academy defrayed the expenses of the visitor's journey, returned their thanks to Cheselden, and commenced a correspondence with him.

In the year 1731, Cheselden was somewhat less fortunate, for he lost favour at Court, and this so decidedly, that when Her Majesty the Queen Caroline died, two years after, from umbilical hernia, which was operated on unsuccessfully, he was not consulted. The cause of this loss of courtly favour is curious. A deaf criminal in Newgate was reprieved on the request of Cheselden, in order that he (Cheselden) might try a mode of treating deafness by puncturing the tympanum. On this point, the "Monthly Intelligencer" of the "Gentleman's Magazine," for January, 1731, gives the following :—"Saturday, January 2. Great talk of an experiment to be made on Charles Ray, in Newgate, a malefactor reprieved on that occasion. The tympanum was to be cut by an instrument, in order to demonstrate whether the hearing proceeds from the tympanum, or the nerves that lie between that and the conception of the ear."

The man's life was saved, but Cheselden, as it is said, in a letter from Ford to Swift, "neglected" to perform the operation, which gave great offence in high quarters. If we may be permitted to judge, we should infer, not that he neglected the duty he had undertaken, but that his humanity shrunk from the task. He did not, on reflection, choose to revive the school of Erasistratus, and make man an animal for physiological inquiries.

On the 2nd of September of this year, his only child, Miss Williamina Dorothy Cheselden, was married to Dr. Charles Cotes, M.D., of Woodcote, in Shropshire, M.P. for Tamworth. Mrs. Cotes outlived her husband, and died without issue at Greenhithe in 1763.

Cheselden had not long to tarry for some compensation for royal slights. The year of 1732 was memorable to the Medical world as the birth-year of the Royal Academy of Surgery in Paris. By this Society he had the great distinction conferred on him of being elected the first foreign associate.

In this same year also, a youth named Richard Yeo, aged 12 years, published a short poem entitled "The Grateful Patient," which is not without merit, in honour of Cheselden, who had operated on him for stone. The poem is printed in the "Gentleman's Magazine," for 1732.—P. 769. After detailing the agonies he had endured previous to Cheselden's assistance : the operation is thus described :—

"The work was in a moment done,
If possible without a groan,
So swift thy hand, I could not feel
The progress of the cutting steel.
Æneas could not less endure,
Though Venus did attend the cure.
Not her soft touch nor hand divine,
Performed more tenderly than thine;
When by her help Iapis own'd,
The barbed arrow left the wound.
For quicker e'er than sense, or thought,
The latent ill to view was brought;
And I beheld with ravish'd eyes,
The cause of all my agonies."

The enthusiastic boy thus ends his effusion—

"And above all the race of men,
I'll bless my God for Cheselden."

In 1733, Cheselden brought out a long promised book, the "Osteographia," a work in which he offers to the reader a delineation of every bone in the body as large as life. The "Osteographia" was dedicated to the Queen, though he must still have been in disfavour, and was published by a four guinea subscription list. The book was rather severely criticised by some, by others unseemingly lauded. Belchier praised it, Heister praised it, Haller showed fairly its merits and its demerits, with his usual candour. The most violent critic of the "Osteographia" was John Douglass, who, as we before saw, was possibly the author of the "Lithotomus Castratus." The critique of Douglass on the "Osteographia" is a low, unmanly selfish production, and we are glad here to correct an error often made by biographers, that it was written by Dr. James Douglass. It is evident from his other writings that this latter gentleman could have been guilty of no such a production. Some months earlier, indeed, he wrote the "Appendix"

(c) An Appendix to the History of the Lateral Operation for Stone, containing Cheselden's present method of performing it. By Dr. James Douglass. London : Strahan, at the Golden Ball, 1731.

on the lateral operation so highly commendatory of Cheselden, with whom he seems to have been always on terms of great intimacy.

John Douglass's asperities were harmless. It is true that he had a few faults to find, which were faults, such as that the Os hyoides was not figured; but the critique seems to have been written, rather to give its author an opportunity of advertising another "Osteographia" of his own, of a cheaper kind, than for any more honest or useful end.

The Osteographia publication subjected Cheselden to the infliction of some horribly inflated verses, which some unknown doggrelist presumed to offer to his honour. We have the verses, but they shall not disfigure our pages.

In 1735, or '36, there lay ill in the house of Cheselden, which, by the way, was in or near to Queen's-square, no less a man than Alexander Pope. The following part of a letter from Pope to Swift, and retained by Nicholls, will bear reprinting as offering an opinion on the merits of our Chirurgeon:—"As soon as I had received your last letter I received a most kind one from you expressing great pain for my late illness at Mr. Cheselden's. I wondered a little at your queræ, who Cheselden was? It shows that the truest merit does not travel so far any way as on the wings of poetry; he is the most noted and the most deserving man in the whole profession of Chirurgery; and has saved the lives of thousands by his manner of cutting for stone." Curiosity-seeking Nicholls has also another letter, written about the same period, by Pope to Cheselden. Here it is. Oh, wicked Pope!

"Dear Sir,—You know my laconic style. I never forget you. Are you well? I am so. How does Mrs. Cheselden? Had it not been for her you had been here. Here are three cataracts ripened for you (Mr. Pierce assures me). Don't tell your wife that. * * * * Adieu. I don't intend to go to London. Good night; but answer me. Yours.

"Bath, November 21." A. Pope.

"P.S.—Show this to Mr. Richardson (d), and let him take it to himself, and to his son; he has no wife."

In the imitations of Horace, verse 39, we have again a reference to Cheselden from Pope:—

I'll do what Mead and Cheselden advise;

and regarding him, the above-named younger Richardson thus writes to Pope, at Twickenham, after recovering from an illness—

——————Cheselden, with candid wile,
Detains his guest; the ready Lares smile.
Good Chiron so, within his welcome bower,
Received of verse the mild and sacred power,
With anxious skill supplied the best relief,
And healed with balm and sweet discourse his grief.

In the year 1737 an opportunity occurred for the election of Cheselden to the office of chief Surgeon to Chelsea Hospital. He took office in February, in room of Alexander Inglish, Esq.; and, as this appointment afforded a comfortable provision for after life, he retired from active practice, though he still seems to have continued to operate occasionally for other Surgeons who sought his advice. We have no means of estimating what the amount of his income had been from practice. Had it been very large he would scarcely have accepted the Chelsea appointment. All we have discovered is, that a great many of the original shares of Putney Bridge were held by him. In 1738 his old pupil, Samuel Sharpe, dedicated to him his treatise on the "Operations of Surgery," in recognition of his claims as the ornament of his profession; and in 1742, another grateful patient, in the person of Mr. Wynne, a Commoner of Jesus College, Oxford, blew at him a third poetical blast, which might have turned the head of a man of weaker build. Cheselden had extracted a large stone from the bladder of the rhyming Commoner.

Years rolled on smoothly now, but our man is not altogether resting from his toils. In 1746 he related the case of a man, aged 75, who was treated for stone by means of the lixivium saponis, or "soap leys," made, as we find by a reference to the Pharmacopœia of that day, by adding together equal weights of potash and quicklime with water. In the bladder of this patient, who was a pensioner at Chelsea Hospital, were found 214 stones, varying in size from a nutmeg to a pea, and weighing altogether 6 ounces 2 scruples (Phil. Trans. Vol. XLIV. p. 36). About the same period Cheselden operated on a patient for stone who was under the care of Mr. Reid, a Surgeon, of Chelsea; and was led in this case to observe, for the first time, that a piece of wetted sponge pushed into a bleeding wound powerfully arrested the loss of blood, and sometimes did away with the necessity for ligature.—Phil. Trans. Vol. XLIV. p. 33. The last important Professional work of Cheselden was done in 1749, and consisted in editing an English edition of the Operative Surgery of M. Le Dran, with remarks and drawings of instruments. It is unnecessary to say that this was well done.

We must not close this short history of the labours and life of Cheselden without an additional word on his private life and character. He married early in his career one Deborah Knight, the daughter of a citizen of London. Mrs. Cheselden outlived her husband, dying in 1764. We have seen that they had only one child.

Indefatigable Nicholls, rooting out dead gossip, gives us a few anecdotes of our Chirurgeon, which are interesting even in their childishness. Having tied a child up for lithotomy, Cheselden offers it sugar-plums if it does not stir. The operation is done with such little pain that the patient immediately demands the fulfilment of the agreement.

A friend saying to Cheselden at dinner, that, as he was the best anatomist in England, he ought to be the best carver, he answered, "I am."

In a conversation at Dodsley's, Cheselden remarked to Pope, that he wondered at the folly of those who could imagine that the fourth book of the "Dunciad" had the least resemblance in style, wit, humour, or fancy to the first three books. Pope undeceived and mortified him by saying that he himself was, nevertheless, the writer. The same unhappy mistake happened between Mallet and Pope.

In hours of leisure, Cheselden was fond of the fencing room, for which we need not judge him harshly. When he was a boy roving over Burrow Hill, that famous encampment was to the country roundabout the field-ground for now nameless, then innocent sports. In London, he found allurements for his boyish predilections, and as he had the priest often enough by his side to keep him in countenance, he did not fear or suffer. In spite of these predilections, the goodness of soul which actuated Cheselden, was always pre-eminent. He was quite uneasy before operating day, and sick with anxiety till the knife was in his hand. One day a curious piece of gossip of this kind went up to the Court. A French surgeon being at the hospital with Cheselden on operation day, was surprised at what he thought to be weakness on the part of his friend. Afterwards the Frenchman was induced to go to the fencing school, where he on his part could not bear the sight, and was taken ill. Both men were praised equally by the courtiers for goodness of heart!

On May 7, 1751, Cheselden sent to the Foundling Hospital £50, enclosed in a paper with the lines from Pope—

'Tis what the happy to the unhappy owe,
For what man gives, the gods by him bestow.

The contemporaries of Cheselden, of distinguished name, were very numerous. Of Medical men there were Mead, Gregory, Akenside, Goldsmith, Fothergill, Keill, Arbuthnott, and many more.

Of his character as a great operating surgeon there can be no doubt. In one place he refers to the mental anxiety with which he contemplated operations, and the firmness with which he was imbued when the fact was being accomplished. He was an excellent anatomist, and to him the London school is much indebted, since he afforded powerful support to the system of teaching anatomy in London; a system which had only been introduced a few years before his time by the French refugee Bussiere, and which was still very unpopular.

Lastly, he was an artist, and many of the plates in his "Osteographia" are from his own pencil.

His personal appearance will best be gathered from the very correct sketch at the head of this history. The sketch is from the original portrait in the "Osteographia," and represents the man in his full manhood.

In the latter part of the year 1751 Cheselden was seized with a paralytic stroke. He recovered, as it was thought, perfectly. On the 10th of April, 1752, being then at Bath, he partook, according to the journal news of the day, too heartily

(d) Meaning Jonathan Richardson, the celebrated painter.

of ale and of hot buns. Finding himself ill he sent for a physician, who ordered an emetic; the advice was not followed. The death-stroke this time fell sure.

By his own direction, the remains of William Cheselden were buried in the burial ground of Chelsea Hospital; and there, on the north side, was raised this last record, this dust-to-dust echo of our first-named great one of the past—

"Guliemus Cheselden,
Natus 19 Octobris, An. Dom. 1688.
Obiit 10 Aprilis, An. Dom. 1752."

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 138.—Circumcision.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—The following curious custom, which prevails among the Bedouins, and which may be new to many of your readers, is perhaps worthy of being recorded in your Notes and Queries.

It is related by Lieutenant Burton in his "Pilgrimage to Meccah."

"There are two kinds of circumcision, the one the ordinary form common in El Islam, the other a kind of ceremony derived from Paganism of a more extensive character. 'Circumcisionis causa apud Arabos manifestissima, ulceratio enim endemica, abrasionem glandis aut præputii, maximâ cum facilitate insequitur. Mos autem quem vocant Arabes "El Salkh" *i.e.* scarificatio—virilitatem animumque ostendendi modus esse videtur. Exeunt amici paterque, et juvenem sub dio sedentem circumstant. Capit tunc pugionem tonsor et præputio abscisso detrahit pellem τῶν αἰδοίων καὶ τῶν κοιλίων ab umbilico incipiens, aut parum infra, ventremque usque ad femora nudat. Juvenis autem dextrâ pugionem super tergum tonsoris vibrans magnâ clamat voce—cæde sine timore. Væ si hæsitet tonsor aut si tremeat manus! Pater etiam filium si dolore ululet statim occidit. Re confectâ surgit juvenis et 'Gloria Deo" intonans, ad tentoria tendit, statim nefando oppressus dolore humi procumbit. Remedia sal et turmerica; cibus, lac cameli. Nonnullos occidit ingens suppuratio, decem autem excoriatis supersunt plerumque octo: hi pecten habent nullum, ventremque pallida tegit cutis."

Another custom may, perhaps, be mentioned, as the account of it is derived from the same work.

"Among the Bedouins, divorces are very frequent. Their marriage customs account for this. 'Torale, sicut est mos Judaicus et Persicus non inspiciunt. Novæ nuptæ tamen maritus mappam manu capit; manè autem puellæ mater virginitatis signa viris mulieribusque domi ostendit eosque jubilare jubet, quod calamitas domestica, si filia intacta abiit. Si non ostendeant mappam, mœret domus, "prima enim Venus" in Arabiâ "debet esse cruenta." Maritus autem humanior, etiam si absit sanguis, cruore palumbino mappam tingit, et gaudium fingens cognatis parentibusque ostendit; paululum postea puellæ nonnullâ causâ dat divortium. Hic urbis et ruris mos idem est.'"

I am, &c., E. W.

No, 139.—An Early Stethoscope.

Sir, —The following entry appears in the Diary of Moore the poet, for March 26th, 1820:—

"Dr. Young dined with us. In the evening Dr. Williams and Mr. Warden came. They mentioned a curious acoustic instrument, shaped something like a telescope, which being placed on the chest, and the ear applied to the other end, tells whether there is any cavity in the lungs, as in that case the noise is heard to come plainly from the chest; otherwise, it is heard from the mouth."

I am, &c. E. W.

No. 140.—Ash Leaves in Gout.

Sir,—I observed, a considerable time ago, that an infusion of the common ash leaves was strongly recommended by a practitioner in the south of France as a remedy in gout, and, subsequently, that an eminent London physician was experimenting on the subject, but I have not noticed any account of the result of the latter's experiment. Can any of your readers give information as to the remedial powers of the infusion of ash leaves in gout?

The insertion of the above among your "Notes and Queries" will oblige. I am, &c. J. K.

Calcutta, Sept. 10, 1856.

ANSWERS.

To No. 132.—Tanned Human Skin.

[*To the Editor of the Medical Times and Gazette.*

Sir,—In your last Number, under the head of "Notes and Queries," an allusion is made to my old master, "Dick Smith," in rather equivocal terms. Perhaps you will allow me to give, in justice to his memory, some account of him. His professional life will bear comparison with that of any other man of his day in the provinces.

Mr. Smith was a favourite pupil of Mr. Cline and Sir A. Cooper, from whom he imbibed a love of his Profession and a zeal in the pursuit of it which distinguished him through a long and active life. He held the appointment of Surgeon to the Bristol Royal Infirmary more than forty years, and for a considerable portion of that period he was the "Sir Astley" of the West of England. The Pathological Museum at the Infirmary is chiefly the result of his labours, and he took a great interest in the collection of calculi, in which that museum is especially rich. Mr. Smith's attainments, also, as a scholar were far above mediocrity. His "eccentricity" was manifested principally in a taste for collecting odd things, among which was the tanned skin of a man who was executed for murder. We all have our hobbies and that was his. He was familiarly known as "Dick Smith," to distinguish him from "Nat. Smith," who is the present worthy "Paterfamilias" of our Profession in Bristol.

I am, &c.

Bristol, October 20. W. F. Morgan.

ANOTHER ANSWER.

Sir,—I know that the "eccentric surgeon" alluded to by Mr. Gilbert, of Portsmouth, in No. 132 of "Notes and Queries," *Medical Times and Gazette* for October 11th inst., was the late Mr. Downing, Stourbridge, Worcestershire, who having obtained the body of a criminal executed at Worcester, brought it home in his gig, had the skin tanned, and various fancy articles prepared of it—purses and the like. The articulated skeleton, I have heard him say, had been suspended over or near the ale barrel containing his "old Tom," which till then never kept to be old enough; after which he had no reason to complain, though he had generally to go and draw for himself and friends, as his servants did not like to venture near the "'Natomy cellar." A faithful biography of the late Mr. Downing would afford many instances of eccentricity, some of them of a very amusing character.

I am, &c.

Sutton Colefield, Oct. 16, 1856. H. E. Shaw.

REVIEWS.

Lectures on the Principles and Methods of Medical Observation and Research; for the use of advanced students and junior practitioners. By Thomas Laycock, M.D., F.R.S.E., Professor of the Practice of Medicine, and of Clinical Medicine, in the University of Edinburgh. Pp. 223. Edinburgh. 1856.

This is the first contribution to the Literature of Medicine which has proceeded from Dr. Laycock's pen since he was elected to his present honourable post in the University of Edinburgh. It is alike creditable to his own reputation, and to that of the great school to which he is now attached. It is, no doubt, necessary that one who holds the principal place as a Medical teacher in the northern metropolis should take the earliest possible opportunity of making known his own professional creed, and of indoctrinating others with his views; and we are happy to announce that Dr. Laycock's work is calculated to advance the science of Medicine in these kingdoms, and to elevate its professors in public estimation. Every page gives evidence of a thoughtful mind well stored in the theory of medicine, and, at the same time, fully prepared to make the best use of all practical Medical resources. Quackery is attacked in all its forms with unspar-

ing energy; and we are not disposed to find fault with Dr. Laycock, if, while he denounces the absurdities of Homœopathy and Mesmerism, he points out likewise the fallacies which too often pass current as truths even within the domain of legitimate practice. For instance, Dr. Laycock warns his readers against two very opposite, though very common errors in therapeutical observation, which are prevalent in the present day: one class of observers attributing undue importance to the operation of drugs, while another class unduly depreciates the efficacy of drugs altogether. As warning against the first kind of fallacy, which attributes certain effects to the use of medicines, while probably the fancy of the patient is the real agent, we may quote the following passage:—

"Perhaps one of the most common sources of fallacy is the influence of what has been commonly but erroneously termed the imagination. It is now among the established truths of mental physiology, that ideas may become realities without the co-operation of the consciousness; and that whether they originate spontaneously or not, a physiological or pathological change suggested to the mind of an individual may take place really and actually, without the co-operation of any other agent than the suggestion itself. It is in this way that the therapeutic fallacies of mesmerism and homœopathy have arisen. Perhaps nothing is so well calculated to elicit this operation of suggestion, as the method of 'proving' a drug adopted by the followers of Hahnemann. The 'prover' takes, as he believes, an infinitely minute dose of a supposed medicinal agent (but, more probably, no portion whatever of it), and then mentally watches, or listens, or feels, as it were, with his attention, for the results that have been suggested to him by theory or otherwise. The anticipated effects will most probably occur; and with a degree of probability proportionate to his mental and corporeal susceptibility."—P. 135.

The opposite error of doubting the power of drugs and of treatment is thus rebuked:—"This has been always a rarer mistake than the opposite; nevertheless it is an error apt to occupy the minds of men who study pathology and pathological anatomy for the purposes of scientific research, rather than with a view to therapeutics. It is an error, too, of those who take a metaphysical view of the phenomena of life. Such inquiries are apt to dwell exclusively on their favourite researches; they are not practical, in the true sense of the term—that is to say, they do not bend their theories to practical uses, nor test their value at the bedside of the sick. On the contrary, they often prefer to watch the disease with a view to the establishment of a theory, wholly neglecting therapeutics; or they think more of the structural changes that they may find in the body during life or after death, than of the means whereby they can arrest the morbid processes upon which these changes depend. Perhaps the French pathological school presents the most striking examples of this error. Another class of doubters of this kind consists of men of a sceptical turn of mind, who are apt to doubt everything—except, perhaps, the soundness of their own judgment in thus doubting."—P. 139.

We regret very much that the space to which we are necessarily limited will not permit us to do full justice to Dr. Laycock's observations, which deserve the attentive perusal of the whole Profession, and we cannot but express our opinion that if the philosophic views which Dr. Laycock unfolds were to be generally adopted, a very great social reform would be effected in our ranks. Dr. Laycock has very ably pointed out that neither experience nor theory, *per se*, will constitute a good Physician, but that both theory and practice together are necessary to correct the conclusions which either may draw, and to form a good and secure foundation for the successful application of the healing art.

"I have shown," says Dr. Laycock at the conclusion of his first Lecture "1. That Medicine is necessarily a conjectural art—necessarily, because in the present state of physiology, pathology, and therapeutics, a positive science, which can alone give rise to positive art, is not attainable. 2. That experience, derived from careful, sedulous, and accurate observation and experiment, is the safest source of practical knowledge, and the best test of all theories. 3. That for the advancement of all knowledge, and its application to practical uses, theories and hypotheses cannot be dispensed with; but that on the contrary, they are essential even to observation, and to the best use of a matured experience. 4. Consequently, that both theory and observation are necessary to the practitioner—theory, by pointing out what needs to be observed: observation, by correcting and enlarging theory. Thus, in the world of mind as in the world of matter, movement depends upon two antagonistic but mutually adapted powers. These constitute its great sources of motion; it is by these and these only, that the human intellect can advance along an ever-widening circle of light and knowledge." P. 45.

While Dr. Laycock recommends his pupils to make use of all those instrumental and other aids to clinical research which modern science has placed in their hands, he very properly cautions them against relying exclusively upon these means of diagnosis, and he points out that the microscope, the stethoscope, and chemical analysis must be all used with caution, and the results afforded by all be compared and corrected by each other.

"Consider this point," says Dr. Laycock, "in reference to two of the best of these aids, the microscope and stethoscope. All experienced microscopists agree as to the fallacies to which the use of the microscope inevitably gives rise, unless in hands familiar with its use by long manipulation. And, even in such hands, fallacies surely abound. Were it otherwise, how can we explain the discordant assertions of the most distinguished microscopists of the day as to the microscopic appearances of morbid structures? The statements made during the successive discussions of the diagnosis and curability of cancer which were held at the French Academy of Medicine in the autumn of 1854 sufficiently illustrate the extent of these discrepancies. . . . . These remarks apply equally to the stethoscope, although in a less extensive way. Every one knows how long a time is required to train the best ear to that detection of delicate degrees of tone which is requisite to the reliable use of the instrument, in the diagnosis of the more obscure forms of structural disease; and how signally the best stethoscopist sometimes fails, even in cases in which unaided but experienced observation triumphs."—Pp. 59, 60. Here we must discontinue our review of Dr. Laycock's work, cordially recommending it to the close attention of our readers, merely observing, in conclusion, that, while the mature Practitioner will find in its pages many remarks of a most suggestive character to aid and guide him in his daily practice, the young Student will derive no less profit by the perusal of the plain directions given to him in his pursuit of clinical knowledge in the Hospital wards.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON HYPERÆSTHESIA IN RICKETS.

By Dr. BETZ.

Dr. Betz calls attention to those cases in which young children often whine and cry without any obvious reason, and shrink from all contact, while those who are old enough complain of tenderness and sensibility of the entire surface. This condition he agrees with Wunderlich in attributing to rhachitis. This hyperæsthesia has its seat in part in the cutaneous nerves, and in part in the nerves of the bones and periosteum, those of the latter organs being especially concerned both in the pain resulting from pressure, and in the paroxysm of spontaneous exaggerated sensibility. This condition is an early accompaniment of the rickety state, existing in different amounts of severity, but not entirely disappearing unless the rickets has become cured. A catarrhal condition is also always present, manifested by increased discharges from the bronchi, nose, mouth, stomach or intestinal canal, just as the hyperæsthesia of adults, *e.g.*, odontalgia, is followed by abundant secretions. With the increase of sensibility is sometimes conjoined an increased hyperæmia of the enlarged ends of the bones, for in minute examination of rickety children, we find that there are slight variations in the volume of those bones, corresponding to the state of the sensibility.

This hyperæsthesia is made known to us by the following signs. Both older as well as young children begin crying without apparent reason, and cry both much and often. Even gentle handling gives them more or less pain, and especially at the parts where the bones are but slightly covered, as the wrists, and sides of the thorax, particularly at the swollen

points of contact of the ribs with their cartilages. The pain induced by pressure on the hypochondria is due to this hyperæsthetic state, and not, as is often believed, to enlarged mesenteric glands or pleuritis, although this last sometimes gives rise to similar sensibility there. Not only are the superficial bones thus painful, but also others that are covered with muscles, as the femur. The cranial bones may also suffer, and the children be unable to bear any contact, such as combing or pommading the hair, or the pressure of a cap. Hyperæsthesia of the jaws is often accompanied by discharge from the mouth, and is attributed to toothache when no carious teeth exist. The mouth is hot and irritable, and sensitive to the temperature of food and drink; and the children use the incisor teeth so as to avoid bringing the food in contact with the sensitive periosteum of the toothless portion of the jaws. Rickety children are fond of crossing the legs while sitting, as this relieves them of a painful weariness of the limbs, and this is also one of the signs of hyperæsthesia. Although this hyperæsthesia principally affects the nerves of the bones and periosteum, increasing or diminishing according to the amount of hyperæmia, the cutaneous nerves may also suffer from it. The author is not certain whether or not spontaneous increased sensibility to pain be present in these, but he has remarked their greater excitability, as shown in the increased ticklishness of these children.—*Froriep's Notizen*, 1856, Band I. p. 231.

ON QUININE IN PUERPERAL FEVER.

By M. BEAU.

M. Beau, during a recent epidemic, has been trying, with considerable success, at the Cochin Hospital, quinine in large doses. He prescribes, at the onset of the disease, an emetic, or emeto-cathartic; and, immediately that its operation has ceased, he gives the quinine in quantities from at least 15 grains to 30 grains, according to the severity and tenacity of the case, in the twenty-four hours, in doses of 7 grains, taken at equal intervals. These doses almost inevitably give rise to the symptoms of quinine intoxication, which in some cases go on to the extent of intense maniacal delirium. It is only upon the condition of these symptoms being induced that benefit accrues. The first patient so treated manifested all the symptoms of intense puerperal fever, and had a pulse of 160; and, as she recovered, M. Beau treated all the women who subsequently took the disease in the same manner, and that from the beginning of the manifestation of its presence. From this time the mortality that had prevailed ceased. This agent has not, however, in any case, completely and immediately arrested the progress of the disease. All powerful, in some sort, over the febrile condition, and over all the assemblage of grave general phenomena, which attends the local lesions of the abdomen, and which might be termed the malignant elements of the disease. It exerts no effects upon these lesions themselves. It, as it were, decomposes the disease, and reduces it to its mere local elements; but the peritonitis or metro-peritonitis, which, from having been super-acute, takes on only a sub-inflammatory character, is henceforth easily dealt with. M. Leudet, and other Practitioners, have already employed it as a prophylactic in this disease with success; but M. Cazeaux derived no benefit from some trials he has made of it.—*Gaz. des Hôp.*, No. LXXIX.

EXCERPTA MINORA.

Remedy for Cramps.—M. Sicre states that he has found very severe and even very obstinate cramps relieved by a very simple procedure. This consists in placing under the bed one or more bars of iron, or a portion of iron of any kind may be placed in the mattrass or under the sheet, in such a manner that it gives firm support to the feet.—*Gaz. des Hôp.* LXXVII.

Dispersion of Milk.—M. Coutenot has found the expressed oil of hemp-seed an admirable means for the rapid dispersion of the milk, employing it in abundant warm frictions, and then leaving the breast covered with wadding soaked in it. It is of no effect where inflammatory action, consequent upon engorgement, has set in.—*Union Méd.*, No. LXXXII.

Vomiting in Retroversio Uteri.—M. Brian draws attention to a case in which the obstinate vomiting of pregnancy seemed to depend upon partial retroversion of the uterus, it ceasing soon after reposition had taken place. Prof. Moreau, who saw the case with him, informed him that he had several times met with similar cases, which were as effectually relieved.—*Bull. de Therap.* Tome LI., p. 57.

Covering Pills with Collodion.—M. Drude recommends that the pills, when rolled, should be well shaken in a box after having poured a few drops of collodion over them. They become in a few minutes covered with a fine coating of this, which gives them a shiny appearance, and wholly prevents their taste being perceived. They are to be left exposed to the air for a few minutes, in order that the smell of the ether may disappear.—*Buchner's Repertor.*, No. III.

Sore Nipples.—M. Legroux has found the following treatment very efficacious. Collodion is rendered elastic by the addition of half a part of castor oil and 1½ parts of turpentine to 30 of collodion. It is applied by means of a pencil over a radius of some centimetres around but not on the nipple. Over this is applied a piece of gold-beater's skin, having some pin-holes opposite the nipple to allow of the passage of the milk. This, by the drying of the collodion, becomes rapidly agglutinated. Before suckling, the gold-beater's skin is moistened with a little sugar and water, and becoming soft and supple, easily admits of sucking. If it is cracked it must be replaced.—*Union Médicale*, No. LVII.

Colour of Cicatrices in the Negro.—There having been considerable differences in the statements of authors upon this subject, some declaring them to be white, and others that they are blacker than the rest of the skin, M. Béguin, Surgeon to a frigate employed in the Indian Ocean, took occasion to observe their appearance in several negroes on board. Examined in 21 individuals, they were always found coloured, never being decidedly white, even after large loss of substance. Their depth of colour gradually increased, and at last, after a variable period, was found to be sometimes less deep, and sometimes deeper than that of the surrounding skin.—*L'Union Médicale*, No. LXIII.

Caustic in Nævus.—Dr. Macke recommends the following caustic as a highly useful application to *nævi materni*, especially in young children. Corrosive subl. 4, collodion 30 parts. It is to be applied by a small brush, and desiccation takes place so rapidly that the action of the caustic does not extend beyond the spots it is applied to. A solid eschar, one or two lines in depth, falls off in from three to six days, and the pain induced is inconsiderable, and of short duration.—*Revue Med.*, 1856, p. 692.

Proto-iodide of Iron Plaster.—M. Alquié speaks highly of the resolvent power of this plaster in the case of white swelling and lymphatic enlargements. Experiment has shown that its employment is much more satisfactory when made by combining its separate elements with the plaster, than by the introduction of the ready-formed proto-iodide. Take of iodine 1, powdered iron filings 2, and pitch plaster 30 parts. Melt the plaster gently, and add the filings, and then the iodine, previously dissolved in 10 parts of alcohol, stirring well with an iron spatula, until a greenish-brown colour is produced. It is then spread and cut into strips for application.—*Bull. de Thérap.*, Tome L., p. 503.

Herniaria Glabra as a diuretic.—Dr. Van Den Brœck states that this substance, frequently employed by Matthiolus and Fallopius, but since fallen into disuse, is resorted to with great success at the Mons Hospital; and that often, when reputed diuretics have failed of effect, the following forms a very excellent one:—Infuse 30 parts of the herniaria in 300 of water for an hour, and add nitrate of pot. 4, tinct. digit. 2, and oxymel of squills 30 parts. Dose: a spoonful.

Iodine in hygroma.—M. Grose has found, in sixteen cases of hygroma, the application of tinct. iodine twice a-day, upon compresses secured by means of a bandage, always attended with success. In very delicate skins the first applications may excite vesication, and then longer intervals may be required, or the iodine may be diluted.—*Moniteur des Hôp.* No. LXXII.

Presbyopia in Bright's Disease.—M. Trousseau states, that the diagnosis of doubtful cases is very often much assisted by ascertaining that there has been an increase of presbyopia, requiring a rapid increase in the power of the spectacles. Whenever we observe this, in a marked degree, we must always examine whether the patient is not suffering from Bright's disease or from diabetes mellitus. One of these affections will be found present in the great majority of cases, at least if no hæmorrhoidal flux or metrorrhagia be present to account for the change. Otherwise, we can almost always detect albumen or sugar in the urine.—*Gaz. des Hôp.*, No. LIV.

FOREIGN CORRESPONDENCE.

VIENNA.

Vienna, September 30.

I send you a short account of the meeting of the German Naturalists and Medical Association at Vienna, and trust it will be instructive to your readers. It was in the year 1822, that a small band of natural philosophers, answering to an appeal made by Oken, met at Leipsic in order to lay the foundation of a Society of German Physicians and Naturalists. Small as they were in number, their names are well deserving of record, not only on account of the high scientific position held by some of them, but because of the important results that have followed from their labours. This association has been the model upon which the now numerous scientific travelling associations in Britain, France, Italy, and America, have been formed. The names of the thirteen founders were Schwägrichen, Martini, Thienemann and Becker of Leipsic, Carus and Reichenbach of Dresden, Formay and Schulz of Berlin, Gilbert of Halle, Heyden of Frankfort, Oken of Jena, Blumenbach of Göttingen, and Maien of Altenburgh. They laid down the statutes still in force. By these it was determined that as a powerful means of advancing Medical and Natural Scienee consisted in bringing their cultivators into personal communication, the place of meeting should be changed every year. Every author of a work on a Medical or Scientific subject was declared admissible as a voting member ; while others not in this position, but who pursued any of these branches of study, were admissible as associates or visitors, but not having the right of voting. The leisure month of September was chosen as best adapted for this combination of scientific expositions with social intercourse.

Oken and his coadjutors could scarcely have anticipated the rapid and brilliant success that attended their project. The next year, at Halle, there were present 38 members, and 37 the year after at Würzburg. At the fourth meeting, at Frankfort, the numbers rose to 88 ; at the fifth meeting, at Dresden, to 115 ; and, next year, at Munich, to 156. In 1828, there were 458 assembled at Berlin, 273 at Heidelberg in 1829, and 412 at Hamburg in 1830. Everywhere the Governments, and the inhabitants of the towns in which they assembled, did all that was possible to render the residence of their guests agreeable and profitable. The tenth meeting was fixed at Vienna for 1831 ; but, owing to the prevalence of the cholera, was postponed until 1833. The reception the members met with there was most flattering ; and by the special command of the Emperor Francis, everything was conducted on a scale of most liberal hospitality. There were 418 members (243 belonging to the Medical Profession), and 339 visitors present.

After an interval of twenty-four years, Vienna has been again chosen for the place of assembly, and, by a most singular coincidence, the meeting had again to be postponed a year, in consequence of the prevalence of the cholera. This thirty-second meeting commenced its sittings on the 16th, and continued them to the 22nd of last September. According to the printed lists of names and addresses, the numbers amounted to 828 members, and 789 visitors, or assistants,—total, 1617. Among these I find 8 announced as from England, 15 from France, and 3 from the United States. The general managers of the business of this meeting of the Association were Professors Hyrtl and Schrötter, the former of whom has been the very soul of the undertaking, creating a positive enthusiasm by his eloquent addresses, when opening and closing the proceedings. There were three General Meetings of the Association, and daily meetings of the Sections, into which it subdivided itself. These sections were ten in number (some being further divided into subsections), viz., 1. Mineralogy, Geognosy, and Palæontology. 2. Botany and Vegetable Physiology. 3. Zoology and Comparative Anatomy. 4. Physics. 5. Chemistry. 6. Geography and Meteorology. 7. Mathematics and Astronomy. 8. Anatomy and Physiology. 9. Medicine. 10. Surgery, Ophthalmiatrics and Obstetrics.

Before each of these, papers of interest were read, the titles of which you will hardly have space to insert. The best of them will doubtless be published in the German Medical journals, and will then be brought under your readers' notice.

I may observe, that a proposition made in the subsection of State Medicine by Professor Seligmann for the foundation of an Epidemiological Society for the whole of Germany, met with great favour, and you will, I doubt not, heartily wish it success. He also announced that he was preparing a Bibliotheca Endemica, a companion we suppose to Haeser's valuable Bibliotheca Epidemiographia.

The Presidents of the Sections were changed daily, and among the names of those filling the office I may mention the following :—In the section of Medicine, Skoda, Stiebel, Oppolzer, Sigmund, Zizurin, and Beneke. In the section of Surgery and Midwifery, Dumreicher, Roser, Jaeger, Donders, Kilian, Seanzoni, and Betschler ; and in that of Anatomy and Physiology, Rokitansky, Donders, Huschke, Nasse, and Ludwig. The meeting passed off with great *éclat*, and Bonn, after a sharp struggle with Rostock, carried off the honour of being the place of assemblage appointed for next year. During one of the general assemblies it was announced that the following had been elected Austrian members of the Academia Cæsarea—Leopoldino-Carolina, viz., Ettingshausen, Fitzinger, Hauer, Hörnes, Hyrtl, Partsch, Rokitansky, Schrötter, Seeburger, and Skoda.

GENERAL CORRESPONDENCE.

FEES.

[To the Editor of the Medical Times and Gazette.]

Sir,—Having just read the amusing, instructive, and truthful report of "Dr. Green," in your leading article of this day on the subject of Physician's Fees, which are so often unpaid through the incomprehensible meanness of an ungrateful public, I take the liberty of sending to you an anecdote of my excellent friend, the late Dr. Chambers, which I copy from a little book which I published some years ago, and which bears closely on the subject in question .—"I called one morning on my neighbour, Dr. Chambers,(a) the then first Physician in London, (some ten years ago) and congratulated him, unfeignedly, on his being in the act of making a very large fortune ; and on his inquiring what I meant, I replied that I had seen many patients go into his house that morning. He said, 'Listen, you may have seen as many as nine this morning, eight of them begged my advice on some pretext or another, the ninth gave me a fee, which I presented to the gentleman, who has just preceded you, who is an honest Doctor in distress.' "

The above treatment is, I believe, universally experienced by Physicians in the early years of their London Practice.

I am, &c, James Eyre, M.D.

Brook-street, Grosvenor-square, October 18, 1856.

MATRICULATION EXAMINATION AT THE UNIVERSITY OF LONDON.

[To the Editor of the Medical Times and Gazette.]

Sir,—Allow me to correct a slight error in your reply to "Alpha" last week, respecting the requirements for the Matriculation Examination at the University of London ; instead of French *and* German, it should be French *or* German.

I feel assured that our Medical Journalists might render great service to the junior members of the Profession, if at the commencement of each academic year they represented to those who contemplate entering on their hospital studies the following year, the importance of first matriculating.

Very many of the best students from distant parts of the country come to London without any knowledge of the value of the London degree, or of the preliminary proceedings by which it is to be obtained ; when immersed in their strictly Professional studies at the hospital, they find to their regret that the honours of the University are shut out from them, from having neglected to do what could readily have been accomplished in their country leisure, had some kindly hand pointed out the way. I am, &c.

London Hospital, Oct. 20, 1856. J. Langdon H. Down.

(a) There is no occasion now to suppress the name of my friend, I have not published it hitherto however.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

SATURDAY, OCT. 18, 1856.

DR. ROUTH, Vice-President, in the Chair.

APOPLEXY OF THE SUPRA-RENAL CAPSULE—FRACTURE OF THE SECOND AND THIRD RIBS—HORIZONTAL FRACTURE OF THE CLAVICLE.

Mr. Canton related the following ease, and exhibited the above specimens in illustration of it:—A female, aged 78, was admitted into the Charing Cross Hospital under his care, in consequence of the injuries sustained from her having fallen from the top to the bottom of a flight of stairs. There was great ecchymosis over the upper part of the shoulder, and in the sub-clavicular region, accompanied by severe pain on the slightest motion. Respiration was performed with difficulty. The patient never rallied from the shock of injury, and died at the expiration of a week. At the *autopsy* the clavicle was found to be almost horizontally split, and partially comminuted, in that portion of it only which is included between the attachment of the coraco-clavicular ligaments and its articulation with the scapula. The second and third ribs were fractured. Mr. Canton made a few observations on the peculiarities of the former injury, and referred the Fellows of the Society for further information to the work of Mr. R. Smith, of Dublin. With regard to the ribs, the rarity of their fracture in the superior region of the thorax was considered to be due to the protection afforded by the elavicle and pectoral muscles in front; the arm externally, and the scapula posteriorly. The viscera of the chest and abdomen were healthy, but in the latter cavity there was found a circumscribed clot of blood, of the size of a small orange, abutting upon the right kidney. Its isolation and form were, at the time, regarded as very peculiar, when the laxity of the areolar tissue in this situation is eonsidered, but further inquiry proved the mass to be the right supra-renal capsule somewhat displaced and greatly misshapen by distension—without rupture, however—from the effusion of blood within it, and which, on section, showed, in its whole circumference, a cortex of supra-renal tissue. Mr. Canton referred to the observations of several anatomists, who held varying opinions as to whether or not the capsule contained a cavity. The fellow-organ was, in all respects, healthy.

Mr. Price exhibited a large scirrhous tumour of the breast, which, when removed, was undergoing the process of softening, and passing into the stage of soft cancer. Some of the axillary glands were affected. Mr. Price also exhibited two excised knee-joints, recently removed, in consequence of disease, originating in the synovial membrane. One case was that of a boy, and the other that of a young woman, whose constitution was very much impaired; and the operations were both successful.

Dr. Andrew Clarke, after expressing an opinion that the tumour removed by Mr. Price, was a colloid, and not a scirrhous one, mentioned the case of a gentleman, who in an effort to vomit, produced by the presence of some coffee in the trachea, expectorated some particles of matter somewhat resembling hydatids, but they ultimately proved to be follicles of the tonsil, which had become distended with fluid. The appearance of these bodies at first gave great concern to the patient, as his medical adviser was unable to account for them; and it was not till Dr. Clarke, in examining the throat, saw one of the follicles protruding from the tonsil, and detached it with the forceps, that their origin was explained.

Mr. Gay read a paper

ON INCISIONS INTO JOINTS.

He commenced his paper by remarking, that three years ago he brought before the Profession, through the medium of this Society, a method of treating certain forms of articular disease by free incisions into the affected cavities; but that since that period his experience of this treatment had led him somewhat to modify his views, and had enabled him with more distinctness to define the particular forms and stages of disease for which it is more especially adapted. His object in making incisions was not merely to evacuate matter, as in the case of an ordinary abscess, and as this proceeding has been adopted and recommended by others; but as well, and even chiefly, for the purposes of allowing the more ready escape of cartilaginous or bony *débris*—often a cause of destructive irritation to a joint—and of setting up reparative action by making a closed or partially closed and diseased sac a part of a large and externally communicated wound. The results of his experience, as that of many of his Professional brethren who had adopted his views, had been still more to convince him that free incisions were of the greatest value in those forms of disease to which they were appropriate, inasmuch as they bring the diseased processes to an equally speedy determination as after resection of the joint, and have the greater merit of leaving the flesh less mutilated, and the joint often almost as useful as before. Morover, the incisions are often comparatively harmless, and, in case of failure, do not lessen the chance of restoring the limb that resection, or other measures of a graver nature, might afford. Mr. Gay then narrated a series of cases. The first, that of a lady, aged 43, who had suffered for three years from all the symptoms of disease of the cartilage and bony structures of the knee-joint, and had come to have the limb amputated. On making an incision into the joint, which Mr. Gay did, with the assistance of Mr. Stephens, over the seat of the principal pain, a small quantity of sero-purulent fluid trickled out with the blood. On examining the interior of the joint carefully, the cartilage was found to be entire, but slightly uneven, leading to the conclusion that the affection commenced in the synovial capsule, and had not seriously implicated other structures. The intense pain from which this lady suffered, especially at night, prior to the operation, was completely relieved by it; and, with the exception of a rigor on the day following, succeeded by slight fever, which soon yielded to treatment, not a bad symptom followed. The capsule soon healed, and in a month the patient began to walk about. She has since enjoyed the perfect use of her limb. The second was a case of hip-joint disease of three years' standing. A sinus, having two external openings, led into the joint. The limb was bent upon the trunk, and the joint still flexible, but with great pain. The discharge had almost ceased, and the diseased action appeared to be almost stationary, and had been so for several months. The joint was fairly opened by enlarging the sinus; the head of the bone had been partially removed, and was bare. The joint recovered completely after fourteen weeks, with considerable mobility, quite enough to make the limb useful. The third case, of strumous disease of the articular cartilages of the knee-joint, of long-standing, in a boy nine years old; the pain was severe, and the discharge profuse. The incision did not answer in this case, the disease making progress subsequently, as though pursuing its natural course, with the addition of a severe wound, which refused to heal. The fourth case, of "strumous" disease of the knee-joint of three years' standing, in a girl twelve years of age. The joint was greatly distended, and had been so for more than six months. It was opened, a considerable quantity of sero-purulent fluid exuded, and, in defiance of every attempt to keep it open, the wound healed in three weeks, leaving the joint in the same condition as before. It was opened again after six weeks, and from this time the course of the disease was onwards, and removal of cartilages and caries of the ends of the bones, attended with profuse discharge, and failure of health and strength. The treatment in this was of no avail, and Mr. Gay had at last to amputate the limb. The articular ends of both bones were carious, and the spongy texture of the bones intensely inflamed for some distance along their respective shafts. No traces of tubercle, but small deposits of pus in those parts of the bone where the inflammation was most severe. The fifth case, a woman, aged 62, for disease of the joint belonging to the phalanx of the forefinger. It had existed six months, and remained stationary. The joint was quite loose, and grated when moved, also painful. A free incision on each side, and keeping the wounds plugged, led to speedy anchylosis. The sixth and seventh cases were of hip-joint disease in children, of 7 and 8 years of age respectively. The disease in both cases was in its early stages, and in one only had a sinus been formed. Mr. Gay opened the joints freely, but with somewhat varied results. In both fresh abscesses formed, and burst on the front of the thigh. In one, severe pain in the knee-joint followed, which could only be palliated by blisters, mustard poultices, and opium; in the other, symptoms

of rapid pulmonary phthisis. These, however, subsequently yielded, and in both cases, after some weeks, the joint disease relapsed into its ordinary forms, the discharge in each being profuse, and the health bad. The incisions in these cases were useless. The last case was of a lad, aged 12, who had symptoms of subacute inflammation of the knee-joint. After three weeks of severe pain, an opening was made into the joint, and some matter passed away. This did not give much relief. The wound ulcerated, and soon after an opening formed spontaneously, nearly two inches from the first, and led into the joint. Very little matter exuded, and the joint continued extremely painful. Some white (apparently) sloughy matter could be seen through these openings. Chloroform was given, and the joint laid open by an incision, which passed through the two sinuses, and a large "pus-clot" was removed, which appeared to have filled the joint to painful distension. Suppuration followed, and the joint rapidly recovered, the lad being able, in six weeks, to move about by means of a stick, and the joint being entire. There were no indications of bone-disease in this case. After making comparisons between these several cases, the author drew the following practical conclusions:—That joints might be opened with advantage. 1st. In cases of chronic inflammation of the synovial capsule of a joint, with effusion into its cavity, and pain; especially if these symptoms shall have been of long standing, have resisted ordinary remedies, and are associated with marks of declining health, as in the first case. 2nd. In cases of acute or subacute synovitis, where the symptoms are unusually severe, and the external coverings of the joint indicate a tendency to ulceration; or where, after a reasonable period, the symptoms do not remit, but indicate the existence within the joint of matter, which, from its becoming a source of irritation, threatens to produce more serious mischief, as in the eighth case. 3rd. In cases where the joint is occupied by bony or cartilaginous *débris*, which, from the small size of existing sinuses, cannot find exit; and 4th. In cases of carious disease of the bones, in which, from diminution of pain and secretion, as well as from other confirmatory symptoms, the disease in which the local affection has originated, shall appear to have exhausted itself, as in the second and fifth cases. He (Mr. Gay) condemned the practice (except for the purpose of relieving severe pain) in all cases in which a chance remains that the joint will recover without, and especially in what are termed "strumous" affections of the joints, so long as the continuance of profuse discharge indicates that the constitutional disorder, in which it is presumed to have originated, has not burnt out; and in the event of this becoming exhausted, only when the persistence of sinuses but slightly discharging beyond a reasonable time might lead the surgeon to suspect the existence within the joint of some dead and irritant matter, or the want of some general stimulus to final and reparative action, which, connecting a diseased sac with an external wound, would supply.

Mr. Stephens confirmed, from personal observations, Mr. Gay's report as to the successful termination of some of his cases. He also mentioned one or two similar cases that had come under his own care. One was that of a man who applied to him to have his foot removed on account of acute pain over and around the ankle joint. The joint was opened, and several pieces of dead bone were removed; and the man was now following his employment as a navvy, having a perfect use of his foot with comparatively little anchylosis. Another case was that of a diseased finger-joint, which was injured by a wound from a gimblet, and which, by similar treatment perfectly recovered. His colleague, Mr. Chance, had also operated for diseased knee-joint upon a young girl, of a strumous diathesis, and altogether in a most unfavourable condition. She remained 12 months under treatment, severe symptoms supervened, and she would probably have sunk but for the most constant and careful nursing; she, however, recovered, and by instrumental aid, could now walk about with the fair use of a limb which once threatened to destroy her.

Mr. Rogers Harrison said he had known many diseased joints, doomed for amputation, recover without any surgical treatment whatever.

Mr. Headland thought it a most serious thing to deal with the larger joints in the way recommended; and he should be glad if the author would furnish some guide for a strict selection of cases in which the operation might be performed with safety. When the constitution was involved by active inflammation and nervous disturbance, the irritation was likely to be considerably aggravated by opening the larger joints; the origin of disease was frequently in some other part of the body, and the patient should be treated for the origin rather than for the local manifestation.

Mr. Price adverted to the tendency of tuberculous disease of the articulations to spontaneous recovery, and expressed an opinion that in a few years time, the amputation of a lower extremity would be a rare occurrence. He had lately saved four limbs which seemed to require amputation, by the operation of resection.

Mr. Henry Smith said he resolved to try the plan recommended by Mr. Gay when that gentleman brought the subject before the profession a few years ago; and he had since adopted it with considerable success, never having seen any evil effects from the treatment. *Small* openings into suppurating joints, as formerly recommended by some surgeons, should be discountenanced. Two years ago he opened a diseased elbow-joint, which was completely disorganized; and, though the case appeared a most unfavourable one, an admirable cure was effected.

Mr. Hancock said, the system propounded appeared to be only successful in those instances in which, in consequence of the long duration of the disease, the actual structure of the joints had become so changed as to diminish the danger of opening into their cavity. Where the disease was recent and progressing, so far from the opening giving relief, it appeared to be attended with an aggravation of the symptoms. Such had been the result of his own experience. He had been willing to give the system a trial, but he thought he had done great mischief by following it. The cases in which Mr. Gay had made incisions into the sinuses connected with the hip-joint would get well by counter-irritation and constitutional treatment. The practice of incising small joints was followed by Mr. Lynn twenty-five years ago; such incisions might be usefully made in fingers, whose entire removal was rarely necessary.

Mr. William Adams said that in several of the cases mentioned by the Author complete destruction of the joint had not taken place. He thought Mr. Gay had understated the success with which his practice had been attended.

The Author then replied, and the Society adjourned.

UNIVERSITY OF ST. ANDREWS.

MEDICAL EXAMINATION PAPERS.

OCTOBER, 1856.

FIRST EXAMINATION.

FIRST PART.

Latin Translation.

Give the derivation and primary meaning of the following words:—Anthelmintic, Dysentery, Hæmaturia, Hydrocephalus, Nephralgia, Paracentesis, Prognosis, and Urticaria.

SECOND PART.

Chemistry.

1. What is the chemical constitution of sulphuretted hydrogen? What is its symbol? How is it prepared? What are its uses as a re-agent?

2. In what states is copper found in nature? What are its oxides, their symbols, and modes of preparation? How may copper be tested for in a solution;

3. State the chemical constitution and symbol of ether? How is it prepared? And what is the general nature of the process of etherification?

4. What changes are produced in atmospheric air and in the blood during respiration? And how are these changes connected with the theory of animal heat?

Materia Medica.

5. Mention the most important Mineral Tonics; name the Doses in which they should be administered; and state the circumstances under which each of them is specially applicable.

6. What preparations for Colchicum, Digitalis, and Valerian are given in the Pharmacopœia? Describe the principal medicinal uses of these preparations, and mention the doses in which you would prescribe them.

7. What are the chief medicinal uses of electricity? Describe the method or methods in which it is commonly applied.

8. Write a Latin prescription (without using abbreviations) for a mixture containing Sarsaparilla and Iodide of Potassium, suitable for a case of chronic rheumatism.

SECOND EXAMINATION.

Anatomy and Physiology.

1. Describe the microscopical appearance and the chemical composition of muscular tissue.

2. Describe the pharynx, mentioning its boundaries, its openings, and its muscles; and explain the mechanism of deglutition.

3. Name and describe the muscles which flex the leg upon the thigh.

4. Describe the position and structure of the heart, its cavities and valves, its sounds and their causes.

5. What are the principal functions of the liver and spleen?

THIRD EXAMINATION.

N.B.—In answering the practical questions the Examiners require every Candidate to specify the mode of treatment he is in the habit of adopting, and the doses of the medicines which he prescribes.

Pathology and Practice of Physic.

1. Describe the several modes of dying in cases of sudden death.

2. Give a sketch of the symptoms, anatomical characters, and treatment of apoplexy.

3. Persons employed in trades requiring the use of white lead, mercury, and phosphorus (lucifer-match makers) are liable to special affections. Describe these, and state what means you would recommend with the view to prevent them. How would you treat the diseased conditions?

4. Describe the symptoms, anatomical characters, and treatment of pleurisy. Under what circumstances would you recommend paracentesis thoracis?

5. Describe the causes, symptoms, and treatment of acute nephritis.

6. Give a brief sketch of the causes, symptoms, and treatment of urticaria, impetigo, and herpes.

FOURTH EXAMINATION.

Surgery.

1. Describe the operations adopted for the cure of aneurism, and the theory of each mode of proceeding.

2. State the causes, symptoms, results, and treatment, of periostitis.

3. Give an account of the varieties of lupus, and of the local and constitutional treatment of the disease.

Midwifery.

4. What are the symptoms of cancer of the uterus, and the signs by which it is to be distinguished from non-malignant tumours of that organ.

5. Under what circumstances does pelvic abscess occur, and what are its symptoms and results?

6. How may the uterus be inverted? What are the dangers of this accident, and what the remedy?

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted on the 16th inst.:—

BARLOW, JOSHUA, Ardwick, Manchester.
BEECROFT, SAMUEL, Hyde.
BRADLEY, CHARLES LAWRENCE, Barnsbury.
HUDLESTON, JOHN NICHOLS, Holloway.
LEACH, JESSE, Heywood, Lancashire.
MOSELEY, FRANCIS XAVIER, Gerrard-street.
MOULD, JOHN THOMAS, Brompton.
SCRIVEN, S. S., Royal North Glo'ster Regt., Cirencester.
SPRANGER, STEPHEN, Bath.
STOKER, WILLIAM, Durham.
TAYLOR, J. R., Deputy-Inspect.-Gen. of Hosp., Chatham.
VAUGHAN, JAMES, Bombay Army.

At the same meeting of the Council MR. HENRY JOHN SWANN, of Barrowden, was admitted an *ad eundem* member of the College. This gentleman had previously been admitted a Licentiate of the Faculty of Physicians and Surgeons of Glasgow, his diploma bearing date April 3, 1843.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of Medicine, and received certificates to practise, on Thursday, October 16th, 1856:—

ALLEN, JOSEPH, Stradbrooke, Suffolk.
CRIBB, ARTHUR JOHN, Bishops Stortford, Herts.
DIXON, THOMAS, Bedford.
LEGGE, WILLIAM, Fakenham, Suffolk.
MASON, ROBERT, Brighton.
WHITFORD, ANTONY, St. Columb., Cornwall.

UNIVERSITY OF ST. ANDREW'S.—List of gentlemen who, had the Degree of Doctor of Medicine conferred upon them, October 18, 1856:—

ALLEN, GEORGE, M.R.C.S., and L.A.C., London.
BONNAR, GEORGE LINDSAY, M.R.C.S. Ed, Cupar, Fife.
BRADLEY, R. H., M.R.C.S., and L.A.C., Greenwich.
BROOKING, C. HENRY, M.R.C.S., and L.A.C., Brixham Devon.
BROWNE, WILLIAM VALENTINE, M.R.C.S., St. Asaph.
BUCHANAN, ANDREW, F.R.C.S., and L.A.C., London.
COOMBS, W. G., M.R.C.S., and L.A.C., Winford, Somersetshire.
DALBY, WILLIAM B., M.R.C.S., Penzance, Cornwall.
DICKSON, LINDSAY F., M.R.C.S., London.
DIPLOCK, THOMAS BRAMAH, M.R.C.S., London.
DOBELL, HORACE BENGE, M.R.C.S., London.
EAMES, JAMES ALEXANDER, M.R.C.S.I., Londonderry.
EGAN, GEORGE WILLIAM, M.R.C.S.I., Dublin.
HALE, THOMAS EGERTON, M.R.C.S., Cheshire.
HARRIS, WORSLEY POULETT, M.R.C.S., Clifton.
HELSHAM, HECTOR, M.R.C.S., and L.A.C., Sussex.
HUGHES, JAMES SHERIDAN, M.R.C.S.I., Liverpool.
JONES, WALTER, M.R.C.S., and L.A.C., London.
KING, ABRAHAM, F.R.C.S., Bridgewater.
LLOYD, WILLIAM HARRIS, M.R.C.S.I., Waterford.
M'KECHNIE, JOHN HAMILTON, London.
MORGAN, SAMUEL, M.R.C.S., and L.A.C., London.
NICOLAS, THOMAS, M.R.C.S., and L.A.C., Newport, Pembrokeshire.
PATON, ROBERT, M.R.C.S., Ed, Dunse, Berwickshire.
PEARCE, RAVENHILL, M.R.C.S., London.
ROCHE, JAMES MARTIN, M.R.C.S., Fermoy Co., Cork.
RUSTOMJEE BYRAMJEE, M.R.C.S., Bombay.
SMITH, WILLIAM ARNOLD, M.R.C.S., Aylsham, Norfolk.
WALKER, GEORGE RICHARD P., L.A.C., London.
WARRY, ELIAS TAYLOR, F.R.C.S., Wimborne, Dorset.
WAUGH, JOHN NEILL, M.R.C.S., London.
WEBB, JOHN CRASKE, M.R.C.S., and L.A.C., London.
YELF, LEO. KEATLEY, M.R.C.S., and L.A.C., Melbourne.

DEATH.

HARDING.—Oct. 16, at Inverness-terrace, Bayswater, George Harding, Esq., late Surgeon, H.E.I.C.S., aged 51.

OXFORD FRESHMEN.—The number entered at the various colleges and halls this year, is 192. The total number of residents at the University may be computed at about 1500.

THE OPHTHALMIC HOSPITAL, MOORFIELDS.—Mr. Macmurdo has resigned his post as one of the Surgeons to this Hospital. This will lead to a vacancy for an Assistant-Surgeon, and an active canvas has already commenced. By an old rule of the Institution, a candidate to be eligible for the appointment must be attached to some other London Hospital, or an articled pupil to some Hospital Surgeon. Mr. Hulke, Assistant-Surgeon to King's College Hospital, Mr. Hutchinson, Surgeon to the Metropolitan Free Hospital, Mr. Streatfield, and Mr. Tyrrell, are already in the field. It is not improbable that more than one vacancy may be declared, and we trust that this very desirable and necessary arrangement may be made.

GLASGOW MEDICAL SOCIETY.—At an ordinary meeting of this Society, held on Tuesday evening last in the Faculty Hall, St. Enoch-square, the following gentlemen were elected office-bearers for the ensuing Session, viz.:—Dr. J. Bell, President; William Lyon, Esq., and Dr. James Adams, Vice-Presidents; Dr. James Fraser, Treasurer; and Dr. J. G. Wilson, Secretary.

BRITISH LYING-IN HOSPITAL.—Three wards of this useful charity are now unoccupied for want of funds.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the annual meeting on St. Luke's day, Saturday, October 18th, the following officers were elected. *President*—Dr. John Mollan; *Vice-President*—Dr. Fleetwood Churchill; *Censors*—Doctors Wm. Barker, F. Churchill, J. Moore Neligan, Henry Kennedy; *Treasurer*—Dr. H. L. Dwyer; *Librarian*—Dr. G. A. Kennedy; *Registrar*—Dr. W. E. Steele; *Professor of Medical Jurisprudence*—Dr. Thomas Brady; *Examiners in Midwifery*—Drs. H. L. Dwyer, W. O'B. Adams, John Ringland; *Inspectors of Apothecaries' Shops*—the Censors. As the election of a Professor of Midwifery will not take place until the 15th of November, Dr. Montgomery has been requested to commence the winter course of lectures at the usual period. On the same day the ancient civic corporation of Apothecaries, or Guild of St. Luke, met for the annual election of officers, when Charles Henry Lect and Robert Mulock, Esqrs., were again deputed to act as assistants to the Inspectors of Apothecaries' shops appointed by the College.

ALLEGED ESTABLISHMENT OF A LARGE MILITARY HOSPITAL IN LONDON.—There is no truth in a report which has appeared in a contemporary to the effect that a large Military Hospital was to be established in London; nor has there been the smallest foundation for such a report. Southampton is an infinitely better and more convenient site for a Military Hospital than the metropolis, and it is there that the building has been commenced, and will be completed.

THE JOSEPHS ACADEMY, VIENNA.—The following have just been appointed to Professors' chairs; Professor Engel, Pathological Anatomy; Professor Langer, from Pesth, Descriptive Anatomy; Dr. Spaeth, Anatomical Demonstrations; Dr. Bernatzik, General Pathology and Pharmacology; and Dr Schwanda, Preliminary Sciences.

FEMALE MEDICAL EDUCATION IN THE UNITED STATES.—A circular is in the course of circulation, inviting the cooperation of all friends of female Medical education to an effort now being made in New York for the establishment of a practical school of Medicine. "The great want which is felt at the present time by women, who desire to follow the profession of medicine, is the opportunity of studying by the bedside of the sick, for the Hospitals are all closed to them." To meet this want, a number of ladies are engaged in collecting funds for the establishment of a Hospital for women and children, to be organized by Dr. Elizabeth Blackwell and Dr. Maria Zakrzewska. This Hospital, while it furnishes an opportunity for the thorough training of Medical students, is designed to meet another want, not supplied by Hospitals generally, viz., an earnest religious influence on the patients. The principle on which it will be founded is that of a Christian charity for the sick poor. New York is chosen as the seat of this institution.

CHRISTIAN MEDICAL ASSOCIATION.—A meeting of this Association was held on the 15th instant at Freemasons' Hall, when a considerable number of Medical Students were present. The principal object was to acquaint the freshmen of the Session with the existence and purposes of the Society. The Chair was taken by F. Le Gros Clark, Esq., and the audience was addressed by Professors and Lecturers from several of the Schools of the Metropolis.

DR. RAE, THE ARCTIC TRAVELLER.—At the Lochaber Agricultural Society's dinner, an incident occurred which formed a very interesting finale to the day's proceedings. A gentleman, apparently a tourist, arrived at the hotel just as the party were to sit down to dinner; he asked, and was immediately granted permission to join; throughout the evening he made himself particularly agreeable, and his health was proposed as "The Stranger," and very cordially drunk. On rising to return thanks he said, "In the course of my life I have seen some rough days and many pleasant ones. I have lived ten months in a snow-house without once warming myself at a fire; I have had my mocassins cut off my legs with a hatchet; I have had to kill my own food with my own gun, and I have been reduced to the necessity of living on bones; but all these things are easily forgotten when I meet such a pleasant party as is now around me. As I am an entire stranger to you all, and as I have received so much kindness from you, it is but fair that you should know who I am; my name is Rae, and you may have heard it associated with the Franklin Expedition." At this announcement the astonished party started to their feet and gave Dr. Rae a most enthusiastic reception. Dr. Rae showed some of the articles which had indicated the probable fate of Sir John Franklin and his party. These consisted of a piece of gold and two silver watches, a small anchor, several coins, a spoon, with a crest engraved on it, &c.

EARTHQUAKE AT MALTA.—The earthquake shocks lately felt at Naples seem to have extended their influence to Malta, and to have done considerable damage. This island has been visited by two tremendous shocks of earthquake. At the Pietâ they were felt violently. Tables, chairs, ornaments, and moveable articles were observed to dance up and down in short jerks. The sea at the Pieta was much agitated for a period of two hours after the shocks, and broke over and washed the mole just as it does in a *gregale*. A piece of Ponsonby's pillar fell. A small village church in the neighbourhood of Siggieui is totally destroyed.

THE CHOLERA IN MADEIRA.—The Board of Health at Funchal have officially certified the entire cessation of the terrible epidemic which has recently ravaged the island of Madeira.

MORTALITY NOTABILIA.—October is usually a healthy month in London. The summer heat, which, acting on certain local conditions, affects the health of the young, has subsided; and the winter cold has not begun to excite those diseases to which the old are specially subject. At the present time the rate of mortality indicates a state of health even better than usual. Last week the number of deaths registered was 974. In the corresponding weeks of the ten years 1846—55 the average number of deaths was 1001; and out of the population, as it now stands, the same rate of mortality which then prevailed would produce 1100. The total number of deaths in London from zymotic diseases is 227; the corrected average of corresponding weeks is 316, which, however, it should be stated, is, in some degree, raised by cholera in 1854, which had not quite subsided by the third week of October. Typhus was more fatal last week than any other disease in this class. The registrar of the Borough-road subdistrict states that during the last seven years the average number of deaths registered by him on the first 18 days of October has been 30; the number this year has been only 3, which, "considering that the population of the sub-district is about 17,000, is a proof of the good health which they now enjoy."

BIRTHS.—The births of 798 boys and 787 girls, 1585 children, were registered. Average 1433.

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, October* 18, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, Oct. 18, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 53·0						° 50·2
ALL CAUSES	974	507	148	151	142	26	1000 0
SPECIFIED CAUSES	971	505	147	151	142	26	992·1
DISEASES:—							
1. Zymotic Class	227	177	24	19	6	1	286 7
2. Dropsy, Cancer, and others of uncertain seat	50	3	8	23	16	..	44·6
3. Tubercular Class	159	63	62	29	4	1	168·2
4. Of Brain, Nerves, etc. ..	98	37	9	21	29	2	101·8
5. Of Heart, etc.	44	7	4	14	17	2	35·5
6. Of Respiratory Organs ..	169	115	14	13	25	2	135·3
7. Of Digestive Organs ..	64	26	10	13	13	2	62·3
8. Of Kidneys, etc.	17	4	4	3	6	..	11·6
9. Of Uterus; viz. — Puerperal Disease, etc. ..	4	..	2	2	..	..	8 0
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	4	3	1	..	..	..	7·1
11. Of Skin, etc.	4	2	..	2	..	..	2·3
12. Malformations	3	3	..	..	..	..	3·7
13. Debility from Premature Birth, etc.	24	24	..	..	..	..	23 3
14. Atrophy	37	27	2	1	7	..	29·8
15. Age	35	..	..	..	19	16	40 5
16. Sudden	5	2	1	2	..	..	6·6
17. Violence, Privation, etc. ..	27	12	6	9	..	..	24 8
CAUSES NOT SPECIFIED	3	2	1	..	..	..	8·5

ORIGINAL LECTURES.

LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.,

Assistant-Surgeon to the Royal Orthopædic Hospital; Lecturer on Surgery at the Grosvenor-Place School; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital, etc.

LECTURE IX.

CONGENITAL TALIPES VARUS—*Continued.*

Morbid Anatomy in the Adult, concluded.—Etiology.—Hereditary Transmission.—Numerical Importance.—Complications of Varus.

(Concluded from page 388.)

The Tendon of the Tibialis Porticus Muscle—(Continued).

I cannot too strongly urge upon you the necessity of studying the altered relations of this tendon, both in the first and second parts of its course, because my colleagues and myself follow the method recommended by Dr. Little, and divide the posterior tibial tendon in the first part of its course, viz., just above the inner malleolus; or in some severe cases in the adult or in youth, as it is passing across this process; but Professor Syme has very recently, in a published clinical lecture (a), condemned and held up to ridicule the plan of dividing this tendon in the first part of its course, on account of its proximity to the artery, and the difficulty of the operation, and recommended its division "a little below, and anterior to, the tip of the internal malleolus," a situation, the Professor observes, "where it is so distinctly located that it is always discovered with facility," but in which, unfortunately for the Professor, the series of specimens I now exhibit to you,—from the fœtus, infant and adult,—prove the tendon does not exist; and it is equally obvious to you that, in these severe cases, the ligamentous rigidity is too great to allow of the tendon being drawn into this position. The possibility—and, where possible, the necessity—of dividing this tendon in the second part of its course, in very slight congenital cases of varus in infants, and in non-congenital cases, will be alluded to when the operation is discussed; but I now wish to demonstrate to you the fact, that the anatomical condition of the parts determines, in all severe cases of this deformity, and equally at all ages, the position in which the Surgeon must divide the posterior tibial tendon. I do not exhibit to you Cloquet's plates of healthy anatomy, as Professor Syme did to his class, and imagine that the relative position of the tendons remains unaltered in club-foot; but I exhibit to you a very valuable series of dissected specimens of congenital varus, several of them belonging to my collection, and others borrowed for the occasion from my colleagues, Mr. Tamplin and Mr. Lonsdale.

In the adult specimen (Fig. 37), in consequence of the navicular bone being situated more completely within the boundary of the inner malleolus, than in any other specimen I have examined, the posterior tibial tendon is folded inwards, between this process and the navicular bone, and is here seen in a flattened and expanded condition, and its texture was most probably altered by the long continued pressure to which it must have been subjected. In a specimen of talipes varus from a man, aged 78, which Mr. Henry Thompson dissected, and exhibited to the Pathological Society—and which afterwards he very kindly presented to me—he has correctly described the situation and direction of the posterior tibial tendon as follows:—"The posterior tibial tendon descends in a straight line to the lower end of the tibia, and then has a slight inclination backwards, passing away from, instead of beneath, the internal malleolus, to an expanded insertion into the scaphoid bone (b)." Whether this case was of congenital or non-congenital origin could not be ascertained. Mr. Lonsdale concurred with me in thinking that it was probably not of congenital origin,—judging from the conformation of the bones, the condition of the ligaments, which were shortened to a less extent than in adult cases of congenital origin; and from the advanced fatty degeneration of the muscles—but that it exhibited the appearances of non-congenital varus of paralytic origin, the severity of the deformity depending very much upon the advanced age of the individual. In adult cases of varus, and also at younger ages, the posterior tibial tendon can generally be felt externally, as it passes along the inner malleolus, so that the great difficulty in finding this tendon, which exists in the infant, does not obtain at later periods of life, when the bones are more developed and the subcutaneous fat less abundant.

The tendon of the flexor longus digitorum is separated a little further from the posterior tibial tendon, as it descends behind the malleolus, than in its normal relation, and does not pass from behind this process forwards, under the projecting process of the os calcis—the sustentaculum tali—but, a little below the level of the ankle-joint, passes suddenly inwards and backwards, at a right angle to the leg, towards the sole of the foot (see Fig. 37). In the sole of the foot this tendon is connected, in this specimen, with the tendon of the flexor pollicis longus by a tendinous slip. To have divided this tendon in the present instance, it would have been necessary either to have operated rather higher than we generally do for the division of the posterior tibial tendon—and I may observe that we generally try to divide both these tendons by the same incision—or to have introduced the knife further than is our practice, having regard to the position of the artery.

The tendon of the flexor longus pollicis does not pass through the groove in the posterior border of the astragalus, in consequence of the absence of this groove in the flattened wedge-like form of the posterior border of the astragalus—which, as I have described to you, is compressed between the articular surface of the tibia and the upper surface of the os calcis, in its elevated condition. This tendon, like that of the flexor longus, passes suddenly inwards and backwards, from beneath a band of ligament a little below the ankle-joint, towards the great toe, in its abnormal position. (See Fig. 37.) In this specimen a tendinous slip connects this tendon with that of the flexor longus digitorum.

The tendon of the peroneus longus does not course round the external malleolus, and then forwards and downwards towards its insertion, as in the healthy foot; but passes directly downwards, with an inclination backwards, across the outer surface of the os calcis; and then, turning round the inferior surface of this bone, instead of entering the groove in the cuboid bone, it passes transversely inwards, across the concavity of the foot to its insertion. (See Figs. 36 and 37.) It is obvious in examining this foot, that the tendon of the peroneus longus has a less distance to travel in the course which I have indicated, than in the healthy foot, and, therefore, that this is really a shortened instead of an elongated muscle, as it is generally described. During the treatment of a very severe adult case, which I shall hereafter describe to you, I found this tendon become so very decidedly tense and prominent, while the anterior part of the foot was being restored to its normal position, that I divided it with decided advantage. Such a proceeding, however, could only be necessary in a very severe adult case, such as that to which I allude, and its tension in this case became painful under the mechanical extension employed.

The tendon of the peroneus brevis passes directly downwards from behind the outer malleolus, across the outer surface of the os calcis to its insertion into the base of the metatarsal bone.

The tendo-Achillis in its course downwards inclines towards

(a) *Lancet*, March 17th, 1855. See also reply by Mr. William Adams in *Medical Times and Gazette*, April 28th.

(b) See Trans. Path. Soc., Vol. VI., page 358.

the fibula aspect of the leg, in consequence of the tuberosity of the os calcis being placed directly behind the fibula; and, at its insertion, therefore, this tendon is also directly behind the fibula. (See Fig. 37.) This deviation I have particularly described in the account I gave you of the severe infantile deformity, and the observations I then made in reference to the deceptive appearance of the tendo-Achillis being placed, as it is generally described, towards the inner rather than the outer side of the leg, and occupying a position often directly over the artery, are equally applicable to this deformity in the adult. The relation of the tendo-Achillis to the outer malleolus is, I believe, the only evidence upon which you can rely in forming an opinion as to the deviation of this tendon in the living foot. The prominence of the inner malleolus is so much diminished by the navicular bone being drawn under it, and this process itself is in some degree twisted forwards, that the relation of the tendo-Achillis with respect to it cannot be very satisfactorily made out.

Tendons which require division.—In all cases of congenital varus in the adult, and in youth; and in all the severe, and I would also say the moderately severe, cases in the infant, the tendons which require division for the cure of the deformity, are the tibialis anticus, the tibialis posticus, and the tendo-Achillis. It is also desirable in all such cases to divide the tendon of the flexor longus digitorum; and in many of the more severe cases the tendon of the extensor pollicis should also be divided. In some of the slighter forms of infantile varus, much less may be required, but to this I shall more particularly advert when discussing the treatment of this deformity.

Vessels and Nerves.—The observations I have already made in reference to the condition of these structures in severe infantile cases of varus, are also generally applicable to this deformity in the adult. I have never had the opportunity of dissecting an undoubted case of congenital varus in the adult, and therefore can state nothing with respect to these structures from direct observation. There can be no doubt, however, that the vessels and nerves retain their adapted deviations in direction, in adaptation to the deformed position of the foot; but it has not been shown that these involve any deviations in their relative position to the tendons, so that they do not assume any importance in a practical point of view. It is also probable, that in consequence of the generally defective state of nutrition, and imperfect growth, previously described as existing in the legs of adult club-footed individuals, the vessels and nerves are, at the adult period of life, deficient in their normal size, in a proportionate degree; *i.e.*, that the vessels and nerves are diminished proportionately to the diminution of the organs to which they are distributed; but there is no reason to suspect that any structural changes either in the vessels or nerves necessarily take place. We might expect to find the diminution in the calibre of the vessels described by Cruveilhier; but, except in a paralytic limb, I think we should not expect to find the extreme degree of atrophy of the nerve-trunks which he has described as existing in the case he dissected, and which I have previously stated, I believe, was an example of non-congenital equino-varus of paralytic origin. We know that when an organ or part of the body ceases to perform its functions, the nerves supplying it undergo atrophy and degeneration to a corresponding extent, and this cannot be better illustrated than in the wasted condition constantly observed in the optic nerve after the loss of vision to the corresponding eye.

Now, in congenital club-foot, the conditions necessary to produce extreme atrophy and degeneration of the nerves are not present. Sensation remains perfect, and voluntary motion also exists, even in the contracted and permanently shortened muscles, though its manifestation is necessarily limited by the anatomical condition of the parts. Nevertheless, the club-foot, even in the adult, can be still further inverted at the will of the patient, and the contracted tibial muscles, and the muscles of the calf, can be felt to swell up under the influence of the will, exerted to produce their contraction, although the movements of the joints which they are intended to control are almost annihilated. The rapid improvement in muscular power, after the cure of the deformity in the adult, to which I have previously adverted, also testifies to the tolerably healthy condition of the nerves in cases of congenital varus, even at an advanced period of life. You will, therefore, probably agree with me that, as the condition described by Cruveilhier is inconsistent with our knowledge of the clinical history of this deformity, and is quite consistent with our knowledge of the changes which take place in paralytic affections, the supposition of the case from which he drew his description being one of non-congenital paralytic origin is proportionably strengthened.

I have now, Gentlemen, described to you the morbid anatomy of congenital talipes varus, as it exists at different periods of life, in a somewhat lengthy and detailed manner, at the risk of being thought tedious; but the account I have given you will be found to differ in many respects from any description hitherto published; and I am equally desirous of clearly describing to you the results of my own dissections and observations on such specimens as I have had at my command, and of stimulating you to the further prosecution of this very interesting and important subject. I will now briefly advert to a few points in the physiological and pathological history of this deformity.

Etiology.—In the second lecture, on "The General Pathology of the Congenital and non-Congenital Deformities," see *Medical Times and Gazette*, October 20, 1855, I have laid before you all the arguments for and against the principal theories which have been advanced to explain the cause, and mode of production, of congenital club-foot. Fully admitting the difficulties with which this part of our subject is surrounded, I stated that, "on the whole, I am disposed to agree with the dynamic or spasmodic, rather than the mechanical, theory, as applied to talipes varus," although some deformities of the feet may be influenced, if not caused, by position *in utero*.

Hereditary Transmission.—This deformity is not only very apt to be repeated in the same family, *i. e.*, it is by no means an uncommon event for the same mother to have several club-footed children; but, also, a very marked tendency to a reproduction of the deformity is sometimes witnessed in two or three generations. The following example of its occurrence in three generations has lately come under my observation at the Hospital, and one of the children is now under my care.

— Hall, a labouring man, aged 46, was born with talipes varus of both feet, and is said to have been pretty well cured by mechanical means. He now walks very well, and his wife, (who gave me this account in July, 1855) says his feet are straight, or nearly so, but his legs are rather small. This man has a brother who was born quite free from any deformity, but has a club-footed child. He does not know of any other case of club-foot having existed in his family. Hall has had thirteen children by one wife, a strong, hearty woman; five of them have been club-footed, three boys and two girls; and in four both feet have been affected. The club-footed children are all alive, out of six of the family living; and the mother says they were always stronger than the rest. Seven children have died of infantile disorders. The eldest of the five children, a girl now 19 years of age, has also lately had a club-footed child—her first child. This is a case of talipes varus of one foot. Mrs. Hall does not assign any cause, such as fright, etc., and says the labours have all been natural and at full time. She is not aware of any case of club-foot having occurred in her family.

It is very unusual to meet with such a numerous club-footed progeny as this; but the occurrence of the deformity in two generations is common enough. We have always several such cases under observation in the Hospital, and, as a rule, we find the kind of deformity in the children to be the same as that in the parent.

Numerical Importance.—In a statistical report of 10,217 cases of deformities of all kinds published by Mr. Tamplin in the London *Medical Gazette* in 1851, and treated at the Royal Orthopædic Hospital up to that date, 1780 cases of club-foot (including all varieties, both congenital and non-congenital) are recorded. Of these, 688 were cases of congenital talipes varus, as follows:—

Affecting the right foot only . . .	182
,, left ,, . . .	138
,, both feet	363

the other 5 cases being of a compound nature: in 2 of them both knees being also contracted, in 1 the wrists and fingers, 1 accompanied with talipes calcaneus of the opposite extremity, and 1 with malformation of the toes. It may also be mentioned, that in 2 of the above cases there was spina bifida co-existing (c).

(c) London Medical Gazette, 1851.

The relative proportions in which the different varieties of congenital club-foot existed, were as follow:—

Congenital talipes varus	688
,, talipes varus of one foot and valgus of the other in the same patient	15
,, talipes valgus	42
,, ,, calcaneus	19
Total of congenital forms . .	764

These tables show you at a glance the great frequency of talipes varus as compared with the other varieties of congenital club-foot; and also that, according to our experience, varus affects both feet more commonly than one foot; but the difference in this respect is not very considerable.

Deduct the number of the congenital cases—764—from the total of all the congenital and non-congenital cases, and we find that, out of the 1780 cases, 1016 were of non-congenital origin, a greater number, probably, than you might be prepared to expect.

In a table of 3000 cases of deformities of all kinds, which were treated by Mr. Lonsdale and myself in three years at the Hospital, and published by Mr. Lonsdale in the *Lancet*, September 1, 1855, 495 cases of club-foot—including all varieties, both congenital and non-congenital, are recorded—but the tabular arrangement given unfortunately does not include the subdivision into congenital and non-congenital forms, therefore it is not available for my present purpose. The tables above quoted are, however, amply sufficient.

Complications of Varus. — Congenital talipes varus is sometimes found to co-exist with some other contractions and deformities of the limbs and also with some malformations generally affecting the nervous centres—the brain and spinal cord. These complications also co-exist with the other varieties of congenital club-foot, but in what proportion they most frequently occur with each variety, I am unable to state. The following are the complications most frequently met with.

Weakness of knee-joints.—In cases of congenital varus, it is by no means uncommon to find a very lax condition of all the ligaments of the knee-joints. If you grasp the thigh with your left, and the leg with your right hand, you will find that the tibia can be rotated on the condyles of the femur, much more freely than in a leg free from deformity. This ligamentous weakness of the knee-joints is met with in very strong children, and appears, therefore, to be in some way connected with the deformity, though its explanation is very difficult. The effect of this complication is to increase the apparent severity of the deformity, in consequence of the leg turning inwards as well as the foot; and also to produce, or rather to perpetuate, a turning-in of the foot in the act of walking, after the deformity of the foot has been perfectly cured. This condition can only be effectually controlled by steel supports carried up to the waist, and connected with a pelvic belt; and the child may be obliged to wear this apparatus for three or four years.

Unless this complication be diagnosed, and its effect mentioned when the treatment of the case is undertaken, the reputation of the surgeon may suffer, because the child still walks with its feet turned inwards; and, moreover, unless the necessary after-treatment be strictly followed out in these cases, the deformity is very apt to return. However, under careful management, there need be no apprehension as to the result of the case, but the after-treatment will be very tedious and troublesome, serious drawbacks to success in hospital practice.

Stiff-knees.—We occasionally see cases of club-foot associated with a rigid extension of the knee-joints. The child is born with the legs extended upon the thighs, sometimes even beyond a straight line, and the thighs flexed upon the body; I believe these cases are always breech-presentations, and they are especially adduced by Mr. Lonsdale as examples of deformity caused by position *in utero*. This complication is more frequently associated with talipes calcaneus than with varus. Mr. Lonsdale observes, "I have seen four cases of congenital calcaneus, where it could be distinctly traced to position 'in utero,' they being breech presentations with the legs extended upwards, the feet being doubled upwards and pressed against the tibia in front. A curious point in these cases is, that there is always a difficulty in flexing the knees, though there is a degree of motion in the joints. The patella is obscurely felt; but I believe it always exists. The muscles on the anterior part of the ankle-joint are always more or less contracted, and sometimes to an extent to require division."(d) I assisted Mr. Lonsdale to make a post-mortem examination of one of these cases. The mother of the child had had three children born with the same deformity. We found the rectus muscle shortened, and the patella of very small size, drawn up above the knee-joint, so that it could with difficulty be distinguished by external examination. The ligamentous structures of the knee-joint, anteriorly and laterally, were so much shortened and adapted to the extended position of the joint, as to prevent flexion even after division of the tendon of the rectus muscle. Two of these children died, but the surviving child has gained a useful amount of flexion of the knee-joints by long continued passive exercise and its own efforts in walking, &c. This complication is a very serious one, but happily of rare occurrence. Division of the rectus tendon would doubtless facilitate the cure. It is, I think, uncertain whether contraction of the rectus muscle at an early period of uterine life produces the deformity, or whether position *in utero* is the cause.

Altered position and diminution in size of the Patella.—I have not observed the patella materially to deviate from its normal position in any other cases of club-foot, than those complicated either with rigid extension or flexion of the knee-joints. In some of the cases above described of relaxation of the ligaments of the knee-joint, the patella appears to be more external and somewhat above its normal position, but this is rather apparent than real, the relation of the tibia to the femur being changed, and is of no practical importance. As a rule, the position of the patella is unchanged in congenital varus. In the cases of extended knee-joints, the patella is always of very small size, and being entirely above the knee-joint can with difficulty be detected. Duval states that he has found it absent in one case, but did not prove it by dissection.

Flexion of the Knee-Joint.—Congenital varus is occasionally, but very rarely, associated with a rigidly flexed condition of the knee-joints. I have a case of this kind at the present time under my care at the Hospital. Only one limb is affected, and the leg cannot be extended beyond an obtuse angle with the thigh, so that division of the ham-string tendons may become necessary; they are not, however, rigidly contracted, and I fear that the ligaments of the knee-joint offer the greatest resistanee. The patella in this case cannot be very distinctly felt, but appears to lie against the lower part of tne external condyle. The leg, below knee, is also shorter than the opposite leg in this case.

Deficiency in the length of the leg.—This is a very rare complication of congenital varus, but I have seen several cases of it in infants, and the child above alluded to is a well-marked example. I have seen two or three cases in which the leg, below knee, had been shorter than that of the opposite limb, and where the deformity of the foot has been that of talipes valgus, or, rather, equino-valgus. In one instance, now under my care, there appears to be some deficiency or malformation of the lower extremity of the fibula; the outer malleolus is very ill defined.

Spina-bifida and malformation of the brain and spinal cord.—The last complications to which I need refer are of so serious a nature, affecting the life of the child, that the deformities of the feet become altogether unimportant, except as a matter of physiological interest. It is a well known fact, that in cases of congenital malformation of the brain and spinal cord, in anencephalous fœtuses, and also in cases of spina-bifida, the co-existence of club-foot is of very frequent occurrence, as well as a variety of other deformities affecting the upper and lower extremities, and, according to M. Guérin, the head, neck, and also the spine. All the facts connected with this part of our subject have been collected and most ably discussed by M. Jules Guérin,(e) in reference to the etiology of congenital deformities. They are adduced by him in opposition to the theory of a mechanical cause, such as *position in utero*, *compression of the neighbouring parts*, etc., and in support of the dynamic theory of the dependence of these deformities upon active muscular contraction.

In the next lecture I propose to consider the treatment of congenital varus.

(d) The Lancet, September 1, 1855.
(e) Mémoire sur l'Etiologie Générale des Pieds-Bots Congénitaux. Par M. Jules Guérin. Paris: 1838.

ORIGINAL COMMUNICATIONS.

ON THE EFFECT OF CHLOROFORM UPON THE RESULT OF SURGICAL OPERATIONS.

By JAMES ARNOTT, M.D.

(Concluded from page 414.)

If the above Tables required confirmation, a reference might be made to other statistical statements, which, though the numbers constituting them are too small to have much weight by themselves, may be usefully considered in conjunction with others having a more extended basis. Of this kind are the tables respecting etherization, that were published four years ago in America (*American Journal of Medical Science* for 1852), and certain notices which we have received of the surgery of the Crimean campaign. It is generally understood that the results of amputations were unfavourable during this war; and, though there were several other causes in operation, there can be now no doubt that this want of success may in some degree be attributed to the use of chloroform. Dr. Gordon, who had Medical charge of the Second Division of the army (in which, however, chloroform was not so much used as in the other Divisions), informs us (see the "Report of the Proceedings of the Crimean Medical Society") that the result of amputations was very favourable in the preceding war in India, and before etherization was in use. Of twelve amputations performed in his regiment during the Punjaub campaign only one proved fatal.

Allusion may also be made to a report of amputations performed under etherization, which was published in the *Medical Gazette* some years ago by Dr. Snow; and as its purpose was very different from recommending caution in the administration of chloroform, it may be here referred to; although under other circumstances the fact of its being a private unauthenticated report would, in such an inquiry as the present, render it inadmissible. Betrayed, apparently, by Dr. Simpson's erroneously high estimate of the mortality in British Hospitals before etherization was introduced, Dr. Snow did not hesitate to publish this report, in which the mortality from 55 amputations of the thigh, leg, and arm, amounts to 27 per cent., as a statement favourable to etherization. But when it is considered that none of the amputations in this list were primary, that, at the commencement of the practice there was more selection of cases than has since obtained, and that several of them occurred in private practice—circumstances all highly favourable to recovery—the mortality from them must be deemed quite as high as that indicated by the reports in the *Medical Times and Gazette*. Dr. Snow says he publishes this report in order to dispel the fears with which some Surgeons may be troubled; as well might a recruiting serjeant encourage to enlistment by enumerating our losses at the Redan.

Although I have not, for certain reasons assigned above, made so accurate an examination of the statistics of the results of amputation in the provinces as in London, I have ascertained that they show an equal, if not a greater, comparative increase of mortality. This operation at some of the largest provincial Hospitals did not formerly prove fatal to 15 in 100; the average mortality for the last two years and nine months (the whole period embraced by the returns) is 30 in 100.

I am perfectly aware that the inferences drawn from these tables and numerical statements will not be acceptable to many members of the Profession who have been using chloroform in every important operation; but I am unable to anticipate any valid objection that can be made to them. The point that was supposed established by Dr. Simpson's investigations, it must at once be acknowledged, is not so established; and, although there may be a difference of opinion regarding the exact correctness of the estimate in my first table of the mortality in the London Hospitals before etherization was in use, this is a point of no importance. The great question is, not whether my table makes this estimate two or three per cent. higher or lower than it ought to be, but whether the mortality from amputation in the London Hospitals, after all the improvement of late times, would have amounted steadily during the last three years to more than 30 per cent. or about a third of those operated upon, but for the continued agency of chloroform? If it be asserted that the mortality of the London Hospitals has not increased, then it must follow that the returns we have had of the results of operations in former years have been most erroneous; that the long-boasted superior salubrity of the London over the Paris Hospitals was not authorized by the truth; and that our Surgeons, though well aware of the comparatively trifling mortality after amputation in the country or in well-ventilated Hospitals, whither most of the patients might have been sent, recklessly persisted in this fearful sacrifice of life.

But (it may be argued), admitting that a great increase of mortality has been proved by these tables to have existed during the last three years, it is not a necessary consequence that this has been caused by chloroform. If any other cause has been acting, let it be pointed out. There has been none which could have effected this difference through so long a period but the introduction of chloroform. Other influences may, doubtless, have occasionally acted in unison with it, and increased the mischief; but to a continued cause alone can the continued increase of mortality be attributed. We know that chloroform is a powerful agent, and that it possesses noxious properties; the ulterior effects of which, as well as the immediate, would have been sooner discovered but for the mists raised by erroneous statistics, and the bold, unqualified assertions of its innocuousness by parties whose opportunities of observation gave an authority to their opinions. It would be no satisfactory explanation of the cause of this mortality to allege, that inflammation of the veins, or pus in the blood, has been epidemic or prevalent. We wish to know what caused this prevalence. An epidemic caused by atmospherical or other similar influences does not last for many years over the whole extent of a country; but this epidemic has been co-existent with, and has, doubtless, sprung from, chloroform. Much of the misapprehension existing on this point has arisen from a forgetfulness of the distinction between predisposing and exciting causes. Intemperance (to take, as an example, a predisposing cause, closely allied to, if not identical with, intoxication from chloroform), is not the immediate or peculiar cause of yellow fever or cholera; but the consequences of drunkenness, and particularly the debility or prostration produced by it, render the human frame a prey to exciting causes which its conservative powers would otherwise have enabled it to resist. We know that the majority of diseases prove fatal by some modification of inflammation and its consequences; and that there are a hundred remote and immediate causes of inflammation. Nothing, therefore, could be more erroneous, if any particular inflammation became prevalent, as of the brain, or blood-vessels, in consequence of the prevalence of some particular predisposing cause, than to say, that this cause had nothing to do with the fatality. Chloroform probably acts injuriously as hæmorrhage acts, or by the debility which it produces. The plan for producing general anæsthesia by excessive bleeding, proposed about thirty years ago by Mr. Wardrop, would have often proved fatal from the same cause (a).

The time comprehended in these statistics is three years, and the locality, London. Such a period and field of observation are amply sufficient to determine the question; but if more be required, let the records of other periods and other hospitals be examined, and the same result will appear. The report by Dr. Snow, for instance, was published six or seven years ago. In extending this inquiry, let care be taken that the return shall be from various hospitals of similar character, that they comprise the requisite number of similar cases, and be sufficiently authenticated. And let it be remembered, that

(a) Dangerous as this plan was, it was better received than what may be termed the first systematic proposal of etherization. I allude to Dr. Hickman's suggestion of producing anæsthesia by the inhalation of carbonic acid gas, which was published twenty years before the subject was taken up in America. We may judge from the following extract from an abusive criticism of it in the *Lancet* for February, 1826, how great the change is which has come over our opinions on this subject:—"Does Dr. Hickman suppose, that he would not be laughed to scorn, if he were to recommend a man who was about to have a tooth drawn, to be previously hanged, drowned, or smothered for a few minutes, in order that he may feel no pain during the operation?" When speaking of the introduction of etherization, I may remark, that no scientific truth in connexion with this measure has exerted a more important influence than the great practical discovery by Whately, alluded to in my essay on Therapeutical Inquiry, that, in cases of suspended animation from narcotism, life may be preserved by long-continued artificial respiration. But for this resource, the deaths, numerous as they are, which have occurred from intoxicating or narcotic inhalations, would have been tenfold. Mr. Whately, of Berkhampstead, lately saved a child in imminent danger from chloroform, by respiration, affected in the manner recommended by Ricord, or "bouche à bouche."

if the effect of chloroform administered in healthier hospitals than those of London be investigated, we cannot expect the same proportion between its injurious effects. A patient might inhale chloroform in a pure country atmosphere and escape, who would be killed by it under the contrary circumstances; just as, according to common observation, a person may, if other circumstances be the same, be bled with impunity in the country who would sink under venesection in London.

Before concluding the subject of amputation, I may remark that, of the two kinds of this operation termed primary and secondary, the latter is the best adapted for a subject of comparison in respect to etherization. The first not only varies more in danger, according to the severity of the injury rendering it necessary; but the question of the propriety of having recourse to primary amputation in certain kinds of injury is far from being yet settled. If the Surgeon were invariably to cut off limbs which another and a better Surgeon would endeavour to save (and this observation applies to both primary and secondary amputations), he would soon be enabled to exhibit a much more favourable return of amputations than the usual average; and the adoption of such a system at any particular Hospital would give it a fallacious appearance of advantage over others.

These observations respecting primary amputation apply with equal force to the operation for strangulated hernia. The mortality from this operation is affected principally by the length of time that has elapsed from the date of the strangulation; and if a Surgeon were always to operate immediately on its occurrence his success would be much above the usual average. He would not, however, diminish the mortality from the disease by so rash a proceeding, for assuredly the greater number of strangulated herniæ can be reduced without any dangerous incision, and the several novel modes of effecting this, which I have at different times recommended, particularly that of suddenly contracting the bulk of the protruding part by a short application of intense cold, will still further diminish the necessity for resorting to the knife. I may observe, with respect to the use of chloroform in herniotomy, that from the smallness of the wound it probably causes little increase of danger. In most minor operations, indeed, the principal danger to be apprehended from its use, is that of sudden death from its primary effects. If I may be allowed to judge of the matter from general impressions (for I have not as yet applied the test of careful statistics) I should be disposed to attribute the mischief from the secondary effects of chloroform principally to its predisposing to pyæmia; but unless in certain parts of the body, small operations involving the incision of only small blood-vessels are rarely the cause of this affection.

Although amputation has been generally selected as the operation for comparison in similar inquiries to the present, it is not the best adapted for the purpose. No operation has undergone or is undergoing greater changes and improvements. The substitution of the ligature of arteries for the hot iron, of the double for the single incision, of union by the first instead of the second intention, of heating for cooling dressings, were all great improvements; but, perhaps, none of these will effect so favourable an agency on the result of the operation, as the plan of regulating the temperature of amputation-wounds, and excluding the air from them, lately adopted in Germany by Langenbeck. Changes of this magnitude render such a comparison as that which engages our attention difficult; and if the practice recommended by Langenbeck prove as successful in other hands as, he assures us, it has proved in his own, a comparison of this kind will very soon be no longer possible (b). It is very different as respects the operation of lithotomy, which has, unhappily, remained nearly stationary for a whole century. The slow and painless dilatation of the neck of the bladder by the pressure of a fluid, which was suggested more than twenty years ago, has rarely been properly executed; and Surgeons have judged of the proposal more by these imperfect trials than by the principles of the operation. In consequence, however, of this stationary condition of lithotomy, the average mortality from no other operation has been so well determined by statistics; and, on this account, it is unnecessary to enter into any such detail on the subject as that which was required with reference to amputation. In young persons, or while the parts about the neck of the bladder remain easily distensible, the fatality of lithotomy is comparatively little; and there is, perhaps, as much difference between youth and age in this respect as between amputation of the thigh and forearm. The deaths from lithotomy in adult patients before the introduction of chloroform were, according to our best authorities on the subject, in the proportion of 1 to 4½, or 22 per cent. of those operated upon. What they are now, will appear by the following tables:—

Table IV.

Showing the Mortality from Lithotomy performed on the Adult and under Chloroform in the London Hospitals during the last Year, from July, 1855, to June, 1856.

Hospitals.	Cases.	Deaths.
St. Bartholomew's	1	0
Guy's	3	2
St. Thomas's	2	1
London	1	1
St. George's	2	1
University College	2	1
King's College	3	2
St. Mary's	2	1
Metropolitan	1	0

Total cases, 17; deaths, 9; percentage of deaths, 52·9.

Table V.

Showing the Mortality from Lithotomy performed on Adults (c) *in the London Hospitals during the last Three Years.*

	Cases.	Deaths.
First Year	10	7
Second Year	14	6
Third Year	17	9
Total	41	22

Average percentage of deaths, 53·6.

The fact that, instead of one in four operations proving fatal, the mortality should now be doubled, and amount to one half of those cut for stone, is so remarkable as to render any comment unnecessary.

I must now bring these observations to a close. Desirous to be as brief as possible, I have excluded every statement or reflection not essential to the exposition of the subject. To dispel the delusion that we have sufficient evidence that chloroform saves life, it was only necessary to point out the fallacies in Dr. Simpson's two tables; and to show the present greatly increased rate of mortality from amputations, it was enough to place before the reader the results of those performed in the London Hospitals. That such an increase of mortality was likely to proceed from the administration of chloroform, will not now be denied by any one who dispassionately reflects on the palpable evidence of its poisonous nature and debilitating agency afforded by the sudden deaths, and the lasting prostration so often occasioned by it.

If the truth of this exposure be called in question, on the plea that it is improbable that so great and pernicious a delusion should have existed so long, it is a sufficient answer to say, that, until a considerable time had elapsed, and the test of statistics could be properly applied, there was no possibility

(b) There is an allusion to this improvement at page 28 of the account which I lately published of the recent improvements on the treatment of stricture; and I may here state, that the modification of the current apparatus, called the "water muff," which I recommended ten years ago for regulating the temperature of wounds, diseased joints, etc., is well adapted for congealing a limb previously to amputation. The frigorific solution may either be made to flow over the skin in immediate contact with it, or a thin membrane may be interposed.

(c) I am not aware that more than one death from the direct effects of chloroform has been reported as occurring in the London hospitals, but the following notice in the statistical return in connexion with one of these cases at Guy's Hospital nearly amounts to such a report:—"The man required an unusual quantity of chloroform. He never rallied well from the operation, and death took place next day."

of detecting it. Chloroform, like the foul air of crowded hospitals, is a secret poisoner, its pernicious effects are rarely cognizable by any peculiar mark; and a reliance on individual experience cannot but lead to the most erroneous conclusions. The light which statistics have thrown on this important question, is only one of the great services they would render practical medicine, if carefully and judiciously employed, and brought, through the assistance of Government, to bear on those collections of facts preserved in the medical records of the hospitals of the country.

That the exposition now made will put a stop to the indiscriminate use of chloroform in operations, is not to be expected; for whatever the opinions of surgeons may be respecting it, or whatever danger may attend its use, patients will now insist upon its being employed, until a perfect substitute can be found. As well might we look for a cessation in the abuse of alcohol, the dangerous anæsthetic for mental pain. But it will be the duty of the Surgeon, instead of urging the administration of chloroform as a means of saving life as well as of preventing pain, to represent to the patient about to submit to amputation or lithotomy, that the endurance of a moderate degree of pain (for by the substitution of local anæsthesia, the pain need never be more than moderate) is a far less evil than to have the hazard of the operation increased to so frightful an extent as to be fatal in three instead of four or five amputations, as formerly, and to render recovery or death after lithotomy, an equal chance.

But it is not necessary that the argument of an increase of the unfavourable results of operations should be insisted upon. Supposing there were no such increase, if there be no sufficient proof of a decrease of these results, as a compensation for the numerous deaths which proceed from the direct and immediate effects of chloroform, the recommendation of its use, especially in the large doses employed of late years, could hardly be justified.

UPON A FORM OF PHAGEDÆNIC ULCERATION OF THE THROAT, NOT SYPHILITIC.

By HOLMES COOTE, F.R.C.S.
Assistant-Surgeon to St. Bartholomew's Hospital.

Patients are occasionally seen in London, in whom there exists a condition of the throat not unlike that which in some parts of the East is regarded as the result of "leprosy." The soft palate and uvula and even the hard palate are destroyed by phagedænic ulceration, which is characterized by a foul surface, deeply eroded, with elevated and everted edges, and thin sparing secretion. The voice becomes thick; the act of swallowing is rendered difficult, and there is an expression of distress in the countenance. In course of time, and under proper treatment, the ulcerative process may come to an end, when morbid adhesions form between the remains of the soft palate and the back of the pharynx, by which the patient's distress in deglutition is considerably increased; add to this that the whole glandular structure of the soft palate is destroyed, so that a most irritating sensation of dryness remains. This condition of the throat is familiar to all surgeons, and when seen in its active stage seems to suggest only two ideas, namely, that it is either the result of cancer or of syphilis. As regards the former disease, I must consider that any obscurity as to the nature of the case would shortly be cleared up, even to the most inexperienced eye. Cancer of the soft palate is a most intractable affection, and does not yield to any known treatment. The history, origin, and progress of the ease, the indurated margin and base of the ulcer, and the aspect of the sore are quite different from phagedæna. But, as regards syphilis, a mistake may much more readily occur.

I am aware that many Surgeons will deny the existence of this form of phagedænic ulceration of the throat unconnected with the syphilitic taint; but, I would reply that such a statement is by no means proved, and that of late years there has been a growing faith in the widely spread influence of the syphilitic virus in modifying or developing a multitude of diseases both in children and adults, which is injurious to the cause of free investigation, and in many cases positively opposed to facts. Many years ago I saw in St. Bartholomew's Hospital two boys, of the age respectively of ten and twelve, in no way related, but in both of whom there existed phagedænic ulceration of the fauces and pharynx. No satisfactory history could be obtained to explain the occurrence of this disease on the grounds of its being syphilis; the parents were poor, but apparently healthy, and no particular symptoms had occurred at the time of the children's birth. Are we to believe that the syphilitic poison contracted by the father at least thirteen years before, may, after infecting the unborn child, remain dormant in that child until the age of twelve, and then manifest itself in the tertiary form? I confess such an assertion seems to me to call for a considerable amount of belief; and I am the more inclined to set it aside from observing how frequently suspicion is cast upon those, whom further investigation would completely exonerate. During the past month I have seen two or three children of the ages of twelve, suffering from eczema impetiginoides and strumous periostitis, both of which might have been mistaken for syphilitic rupiæ and nodes. They had indeed been diagnosed as such.

The following case is interesting in connexion with this subject:—

Jane B., aged 20, a pallid, strumous-looking girl, of respectable parents, and born in the country, states that seven years ago her throat became sore. She came to town to enter into service, and became out-patient at an hospital on account of difficulty of swallowing and loss of voice. These inconveniences continuing she was recommended change of air, and she returned to her friends, but subsequently was obliged to enter another hospital, where she was treated with cod-liver oil and the local application of nitrate of silver. It was about four years ago when she left this hospital, apparently in good health, but with considerable damage done to the soft parts, although there was no active ulceration. Since that time she has had frequent advice for return of the soreness of the throat, and has been questioned as to her ever having had syphilis, but she firmly denies having even exposed herself to contagion. During the course of her illness she has had disease of both the forehead and right upper arm, in both of which situations there are large cicatrices. The lining membrane of the soft palate was preternaturally red and vascular, and presented throughout tubercular elevations and numerous wart-like growths: the arch of the palate had been greatly changed in appearance by ulceration, and the remains of the uvula were adherent to the right and left side. In several situations there were spots of ulceration.

Upon first seeing this patient I concluded, without a moment's hesitation, that she was suffering from tertiary syphilis; but she assured me most solemnly to the contrary, adding that the same question had frequently been put to her before. She stated that she had no objection to inform me of anything connected with the disease, but that she had never exposed herself to infection. As I received her evidence with mistrust, I questioned her in private, when she repeated her denial, with evident distress at being disbelieved. She could have had no motive for concealment, for I saw her at the out-patient room of St. Bartholomew's Hospital, where she might have given a false name, or withdrawn from attendance without further inquiry. Under proper treatment, the ulceration, which was of chronic character, healed.

Just one month after the coming of this patient, a respectable-looking man presented himself with an affection of the hard and soft palate, in many respects similar. There were three foul ulcers occupying the hard palate and the velum palati, with elevated edges, surrounding a deep hollow, covered by an adherent secretion. The appearance of these sores was as if a phagedænic ulcer had extended to the bone, which had become denuded and carious, or dead; such, however, to all examination, was not the case. Upon questioning this patient I found that he was married, that he had never had syphilis, but had suffered thirteen years ago from gonorrhœa, which yielded to the usual treatment. This case is still under treatment.

There is in respect to these cases a ready mode of solving the difficulty in diagnosis by totally disbelieving the patient's statement; by affirming that the disease can be none other than syphilis according to all precedent; but I ask whether so ready a solution would be satisfactory? Have we attained that state of knowledge and certainty which will enable us to prejudge our patient's story?

That such a frame of mind is ill-suited to advance medical science might be illustrated by its application to the examination of the leper-huts at Jerusalem. There the believer in

the universal spread of syphilis would find case after case in which he would admit but one cause, and that cause his further investigation would show to be nearly absent. He would then be in a position either to deny his own theory or disbelieve his own senses.

I should be very sorry to re-introduce the word leprosy into Medical literature, inasmuch as, 1st, it is not probable we shall ever see in this country the group of cutaneous affections which were so designated, except under very mitigated form. Against their encroachment we are protected by a temperate climate, a cheap and ready supply of linen-clothing, good food, and an abundance of water for ablution. 2ndly. The diseases are tolerably well known under names which express well the varieties—namely, elephantiasis Græcorum, lupus in all its stages, perhaps molluscus contagiosus, and some forms of struma. But I venture to suggest that these affections of the throat and fauces, which I have been describing, are not of syphilitic character; that they resemble the foul ulcerated throat of the Eastern patient, and should more correctly be referred to a tubercular affection of the mucous membrane of the palate, allied in its nature to lupus, and occurring in people of strumous constitution.

Since writing the above I have been informed by Mr. Hutchinson of a third case, similar to the above, which occurred in private practice. There was no syphilitic history of any kind, the patient being a perfectly respectable married man.

ON THE DIFFERENCE BETWEEN THE MORTALITY AFTER AMPUTATION FOR INJURIES AND DISEASES.

By J. H. JAMES, F.R.C.S.,
Surgeon to the Devon and Exeter Hospital.

Having just seen a report, in the *Medical Times and Gazette* of April 26, of a paper communicated by Mr. Hussey, of Oxford, to the Royal Medico-Chirurgical Society, containing a very complete registry of 164 cases of amputation which were performed at the Radcliffe Infirmary, which report also contains the opinions which were expressed by many eminent Surgeons on the occasion of its being read,—I may, perhaps, be permitted a few remarks on one very important part both of the paper and the discussion, namely, the great relative amount of mortality after amputation of the thigh for injuries, and the cause or causes thereof.

Of this great mortality there can be no question, although it singularly differs under circumstances which appear very similar. Thus, Mr. Erichsen is reported to have stated that "he believed not a single case had proved successful either in the French or the British Camp," leading to the total abandonment of the operation. Such also appears to have been the case in the Seven Years' war, when Bilguer interdicted it in the Prussian Army; nearly such was the case in Paris after the great conflict in 1830; while, on the other hand, Mr. Guthrie gives a widely different result as regards the experience of the Peninsular War (a), and it might be supported by many others, showing that, large as the mortality undoubtedly is, and much as it would tend to deter Surgeons from the operation, still it ought by no means to amount to a prohibition. These statistics are on a large scale; and certainly no limited experience, however exact, will entitle us to form a positive conclusion; but as regards Civil Hospitals, as far as the returns go, the same discrepancy may be observed. The results stated in the Report alluded to [I believe, taken from my own Tables, in part(b)] exhibit on no less an authority than that of Mr. Erichsen, a total loss of 32 cases in Edinburgh, Glasgow, and St. Thomas's, out of the same number of thigh amputations; while his own experience at the London University, and Mr. Curling's at the London Hospital, appears to have been more favourable (and many others might be added); thus, then, if the experience of Military practice be compared with Military; of Civil Hospitals in large cities with those of others;—a singular amount of discrepancy is observable; and to this I will now add the comparative results of two Provincial Hospitals very similarly situated, which the Report of the Oxford affords. In that institution, of 6 primary amputations of the thigh 5 were fatal; in the Exeter there were 8 deaths out of 13, as stated in the Tables I constructed, and which are contained in two memoirs in the 17th and 18th Volume of the Transactions of the Provincial Medical and Surgical Association (which Tables may be briefly described as follows:—I took 300 consecutive cases of amputation of all the limbs, beginning from the period when I first became Surgeon of that Hospital. Of these, 94 proved to be for injuries; and of these 68 were primary and early intermediate; 26 secondary and late intermediate. Of the former, 13 were of the thigh, and 8 died.)

Pursuing this subject of the singular discrepancy in the results of amputation, it is well worthy remark, that of the 12 primary leg amputations in the Oxford Infirmary, none died, while of 18 in our own, 7 died. But then an extract from the very valuable work of an able Surgeon, now no more, Mr. Alcock, will offer a similar example. He says, "In the first 16 amputations performed for gunshot wounds, consisting of primary and secondary, including a shoulder-joint case, the majority of the thigh and leg, I lost but one (and that was an almost hopeless case of secondary amputation of the thigh). In the next 8 I lost 7."

However worthy of notice these discrepancies are, there can be no doubt that they will ultimately be found to resolve themselves into definite principles governed by certain laws. They are like the perturbations of the planets, which once were equally unexplained. But to return to our more immediate subject.

The Mortality after Amputation for Injuries, as compared with those for Disease.—In Mr. Hussey's Report of 55 amputations of the thigh for disease, 10 were followed by death; in my own, out of 119, there were 10; here, again, it is probable that, as regards the former, the mortality may, from some accidental circumstance, have been greater; in my own, less than the average: but take which table you will, there is no proportion between the general mortality after amputation for disease, and for injury, and take which you will, while the mortality after amputation for diseases, especially of some large classes of disease, is not alarmingly large, even in the thigh, that for injury has justly been stated as the "most fatal in Surgery." When the influence of concurrent diseases, as of the lungs, etc., and chance misadventures in carrying out the operation, and its subsequent treatment, are duly considered, the actual mortality for disease is not large *per se*, as in the memoirs I have alluded to, I have endeavoured to show (c); but this being the case, then comes the question, On what does the great amount of mortality after amputation for injuries depend? My answer is, Not on the amputation, but on the injury.

Mr. Hunter's axiom,—that it arises from the condition of health not bearing disease well—I have before combated (d), and there is little reason to believe it will be insisted upon, but in lieu thereof other hypotheses have been advanced, which, when duly inquired into, will I believe, be found extremely doubtful, to say the least; in the discussion, however, to which I now refer, the phenomena thus explained occupy a prominent place. The extraordinary mortality in cases of amputation of the thigh, then, has been of late years attributed to the bone itself; to inflammation of its medullary membranes; still more to inflammation originating in the veins. At first sight there may appear grounds for these opinions, which are advocated by men of high ability, but when it is considered that in the parallel example of the arm, also in the leg and fore-arm, the mortality after amputation for injuries is comparatively small, the value of these hypotheses will considerably decrease; still more, when the comparative results of amputation for injury and disease are well considered with relation to the thigh itself, and with reference to this I will content myself with quoting the following passage from my second memoir:—"Very high authorities attribute this (mortality) in a great degree to a cause which, at first sight, appears to offer a ready solution, namely, that the veins within the bone are mechanically prevented from closing, as in the soft parts, and are, therefore, prone to inflammation. The facts now stated will show that, however this may be, it cannot be the real cause; for precisely the same conditions, as to the bony structure, obtain in amputations for disease, where such consequences rarely

(a) He lost 9 out of 47 of all limbs. For more extensive returns I beg to refer to my Memoir in the 17th Volume of the Transactions of the Provincial Association, pp. 74 et seq.

(b) Transactions of Provincial Association, Vol. XVII. pp. 6 and 7.

(c) Vol. XVII. p. 83, et alibi.

(d) Vol. XVII. p. 57, et seq.

ensue, as in those for injury, in which secondary inflammation is so common; and in those for injury I may observe, that they occur in a very small proportion when the amputation is of an upper extremity, the condition remaining the same. That inflammation of veins often takes place after amputation for injury, and that secondary inflammations in other tissues also occur, is a fact, and that these, whenever they take place, are capable of exciting an additional, and often fatal, effect, is quite certain; but, it may be demanded, if veins inflame in the one case, why should they not equally in the other, if the amputation is performed through sound and healthy parts in a healthy person (primary amputation)? why should the veins inflame when the cause is an injury, so much more frequently than in the unhealthy, where it is disease (e)?" (The bone is equally sawed through in the one case as in the other, and above the injured portion). Of this remarkable fact no explanation has ever been offered.

If then I am justified in supposing that these hypotheses are insufficient to explain the phenomena, I may be warranted in again proposing that which I advanced in the memoirs alluded to. It is this. That the lesions which require amputation, (in primary cases) are for the most part produced by causes which extensively crush or lacerate the part. That in those which require the amputation of the thigh, a very considerable portion of the body is involved. That the condition of the nerves in any part so crushed or torn, is very similar to that of a portion of the spinal cord as experimented upon by Le Gallois and Wilson Phillip half a century since. That the effects on the system in either case constitute what we call shock. (f) That whether the injured part is severed by amputation or not, death often ensues, as is well known, as also that if an operation is superadded at an improper period; either too soon, or too late; additional injury is inflicted; but if sufficiently soon, or sufficiently late, much benefit often accrues. That, whether the part is severed or not, a train of symptoms arises from the lesion which required it. That these symptoms are very probably the consequences of changes wrought in the blood by the injury, as stated, through the agency of the nervous system, and is, so to say, more or less disorganized thereby; the effect being not very dissimilar from that produced by the introduction of morbid poisons.(g) That this state of the blood (not excluding that of the nervous system) is incapable, while it continues, of supporting the processes of healthy inflammation, and hence the tendency to gangrenous inflammation and phlebitis in the stump, and the diffuse inflammations, pyæmia, and pus deposits, in the system(h). That the powers of nature are capable, in many cases, of redeeming this state of the blood, either when amputation has been performed or not, and if not, when so redeemed amputation may very frequently be performed with success, (true secondary).(i).

Another question arises, *i.e.*, whether this hypothesis is supported or contradicted by any other results of amputation for disease. I have already pointed out the great difference between the general results as regards the relative amount of mortality in amputation for disease or injury, but a very remarkable fact disclosed itself in my investigation of the histories of amputation for disease, as regards these especially. To render the investigation methodical, I had distributed them into classes, according to the disease for which they were performed, a plan which has not heretofore been attempted, but which is so consistent with reason, that I hope it will be. In the memoir alluded to, I divided them into two groups. The 1st, diseased joints, necrosis and caries, sphacelus senilis (chronic gangrene), malignant diseases (tumours not ulcerated), and useless limbs. These comprised 172 cases of all kinds, with only 8 deaths.

In the second group, old ulcers, whether malignant or not, acute sphacelus, and acute suppurative inflammation (thecal, etc.), in all 32 cases, there were 9 deaths (k). The amount of mortality in this group is, as regards the *lower extremities*, fully equal to that of amputation for injury, which, out of 51 cases, gave 21 deaths; while this, out of 25 cases, gave 9. And if we investigate the probable cause of this (setting aside the question of age, which must have its due weight as regards the amputation for ulcers,) we shall find that the condition of the blood may be regarded as in a state very similar to that which I have supposed to be induced by injuries, *i. e.*, if not absolutely pyæmic, at all events readily disposed to be so (l). And consequently, the facts would tend to support the opinion I have advanced as regards amputation for injuries; at all events, not militate against them.

To the scheme of the *Analysis* of Amputations for Disease, I may also solicit the attention of Surgeons; for, if more extended inquiry shall confirm the preceding views, it is evident they will have an important practical bearing on the plans adopted. I may further be permitted to add, that when the small amount of mortality ensuing upon amputation of the limbs for diseases of joints is compared with that which has followed their excision, it may not improbably be found that the advantages gained by the latter operation do not sufficiently compensate for the risk incurred.

Exeter, May 15, 1856.

(e) Vol. XVIII., pp. 307–336. (f) Vol. XVII. p. 60 et seq.
(g) Vol. XVII. pp. 64, 5, 6, 7. (h) Vol. XVII. p. 65.
(i) Vol. XVII. p. 81 et seq. (k) Tab. Part 2nd Vol. XXVIII. p. 332.

(l) Part 2nd Vol. XXVIII. pp. 316.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING JULY, AUGUST, AND SEPTEMBER.

(Continued from page 418.)

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the "Dreadnought" Seamen's Hospital.

REMOVAL OF THE TESTIS.

Case 1.—St. Bartholomew's: Mr. Lawrence.—A man, aged 21, was admitted on account of what was supposed by the Dresser to be hydrocele. It was punctured, but only about 2 ounces of bloody fluid escaped. He was in good health, and had noticed the enlargement only six months. The gland was the size of a small fist. Excision was practised, and the disease proved to be medullary cancer. The cord was diseased. The wound healed, but the disease returned in the cord. Under treatment.

Case 2.—St. Bartholomew's: Mr. Coote.—A man, aged 50, the subject of a very large growth of epithelial cancer, occupying the entire scrotum. Both testes were involved, and were removed, together with the whole of the scrotum. Recovery.

REMOVAL OF THE BREAST, OR OF TUMOURS CONNECTED WITH IT.

Case 1.—St. Bartholomew's: Mr. Paget.—A woman, of middle age. The disease was a small growth of scirrhus, which had commenced by ulceration round the nipple. Excision. Recovery. *Case* 2.—The Metropolitan Free: Mr. Hutchinson.—A woman, aged 42, in delicate health, from whom a scirrhus growth in the lower part of the breast had been excised five months before, together with several cancerous glands from the axilla. The disease had returned in the outer part of the remaining portion of the gland. Excision of the whole cicatrix, and of a large part of the gland. Recovery. *Case* 3.—The London: Mr. Ward.—A single woman, aged 35. Excision of a tumour about the size of an orange, of two years' growth, together with about half of the mammary gland. The disease proved to be medullary cancer. Recovery. *Case* 4.—The Middlesex: Mr. De Morgan.—A healthy woman, aged 35. Excision of a mammary glandular tumour from the breast. Recovery. *Case* 5.—The Middlesex: Mr. De Morgan.—A woman, aged 37. Excision of the breast on account of scirrhus. Recovery. *Case* 6.—The Middlesex: Mr. Moore.—A woman, aged 53. Excision of the breast on account of scirrhus. Recovery. *Case* 7.—The Middlesex: Mr. Moore.—A woman, aged 30. Excision of a chronic mammary tumour. Recovery. *Case* 8.—The London: Mr. Adams.—A woman, aged 49, in good health. Excision of the breast, on account of scirrhus of two years' duration. Recovery. The mass weighed two pounds

and a-half. *Case* 9.—Guy's: Mr. Cock.—A woman, aged 54, in good health. Excision of the whole breast, on account of scirrhus. Recovery. *Case* 10.—St. Mary's: Mr. Lane.—Second excision of scirrhus, on account of recurrence in the cicatrix after removal of the breast, three years ago. Recovery. *Case* 11.—Guy's: Mr. Forster.—A woman, aged 47, in good health. Excision of the entire breast, on account of a small scirrhous mass. Recovery. *Case* 12.—Guy's: Mr. Forster.—A woman, aged 35, in good health. Excision of the entire breast, on account of carcinoma, of seven years' duration. Much difficulty had been encountered in getting the woman under chloroform, but she was not kept long insensible. During the following night she seemed fairly, but the next day she passed into profound collapse. Diarrhœa now set in, and her state of collapse much resembled that of a cholera patient. Death on the third day. No autopsy. *Case* 13.—St. Bartholomew's: Mr. Stanley.—A healthy girl, aged 16. Excision of a mammary glandular tumour, the size of a walnut. Recovery. *Case* 14.—St. Thomas's: Mr. Solly.—A woman, aged about 30. Excision of chronic mammary tumour, the size of two walnuts. Recovery. *Case* 15.—Guy's: Mr. Cock.—A woman, aged 38, in good health. Excision of the right breast, on account of scirrhus, of two years' duration. Doing well. *Case* 16.—Guy's: Mr. Cooper Forster.—A woman, aged 36, the subject of a large ulcerated and pendulous mammary glandular tumour. The whole gland was involved, and was removed. It had existed six years, and been ulcerated for three. Recovery. *Case* 17.—Guy's: Mr. Cock.—A woman, aged 30. Excision of the breast, on account of scirrhus, and of an enlarged gland from the axilla. Recovered.

LIGATURE OF ARTERIES.

Case 1.—St. Bartholomew's: Mr. Stanley.—A man, aged 40, was admitted on July 31, on account of a large aneurism of the right axillary artery extending from the clavicle to the lower border of the pectoral muscle. There was forcible pulsation and distinct bruit. He had formerly been an artillery-man in India and had drunk freely, during the last year he had been employed as a street-hawker. The existence of the aneurism had been known of for five or six months, there had latetrly been much pain in it, and he had taken opium largely. During the first few days that he was in the Hospital, the tumour increased rapidly, and it was determined not to defer the operation of tying the subclavian. On the 4th of August this operation was performed in the usual matter external to the scalenus. A large external jugular vein crossing the line in which ordinarily the incision in the skin is made, the latter had to be taken in a curved direction so as to avoid it. The day after the operation, excepting much prostration, the man's condition seemed favourable. On the third day severe pain in the left side with much difficulty of breathing occurred; these symptoms increased and death took place on the morning of the 7th inst. At the autopsy about a pint and a half of turbid serum, with curdy flakes, was found in the left pleura. In the neck there was purulent infiltration of the tissues beneath the cervical fascia and about the muscles of the trachea. In the left axillary artery was a dilatation the size of the end of the thumb. The arch of the aorta was much dilated and the seat of atheromatous deposit.

Case 2.—St. Thomas's: Mr. South.—A woman, aged 48, under care on account of an aneurism of the right external carotid. A ligature was placed on the common carotid on July 5th. Partial paralysis of the left side followed, and the patient gradually sank. Death took place on the 8th. No autopsy.

Case 3.—The Westminster: Mr. Holt.—A lad, aged 18, was admitted with a large doubtfully pulsating swelling in the front of the thigh, which extended nearly up to Poupart's ligament. Pressure on the femoral where it crosses the brim of the pelvis controlled its pulsations and diminished its size. The history was that it had followed a punctured wound 17 weeks before. After much consideration as to the treatment to be adopted, it was decided to lay it open and tie the vessels communicating with it. This was done, the blood-clot was turned out, and four large vessels were secured. The case has since done well, but still remains under treatment.

Case 4.—The London: Mr. Debenham (H.S.).—A girl, aged 13, sustained a deep punctured wound in the sole of the foot. Profuse secondary hæmorrhage occurred repeatedly, ten days after the accident. On this account she was admitted, plugging of the wound having failed to control it. On admission she was blanched and almost pulseless. Arterial blood was welling up from the lower part of the wound. Mr. Debenham finding that pressure behind the internal malleolus, entirely arrested the bleeding, thought it more prudent to place a ligature on the posterior tibial than to cut down on the bleeding spot. This was done, and no bleeding whatever occurred subsequently. The ligature fell on the 7th day, and the wound in the foot is now almost healed.

Case 5.—St. Bartholomew's: Mr. Skey.—A woman, aged 40, admitted on account of a wound of the radial artery. Both ends were tied and the case did well.

Case 6.—St. Mary's: Mr. Staples, (H.S.)—A man, aged 23, fell with a jug in his hand, and cut through the ulna nerve and artery and some tendons. Ligature of both ends of the artery was performed and the wound did well.

TREATMENT OF ANEURISM BY COMPRESSION.

Case 1.—King's College: Mr. Fergusson.—A man, aged 46, who had previously been for some weeks under compression treatment with the result of much diminishing the size of the tumour but not quite solidifying it. He was allowed to leave the Hospital for a time and returned a fortnight afterwards, the tumour being the size of a walnut and pulsating strongly. Compression was again adopted and on the third day all pulsation ceased.

Case 2.—The London: Mr. Luke.—A man, aged 38, under care on account of a popliteal aneurism from which he had suffered eight months. The tumour was of considerable size, but did not quite fill the whole space. It extended upwards and outwards. He was in good health and seemed a favourable subject for compression treatment. Pressure was commenced and kept up without material inconvenience for about a month, at the end of which time pulsation had all but ceased. At this juncture the tumour suddenly increased in size, the leg became œdematous and shortly afterwards lividity of the foot was apparent. Mortification of the foot setting in, it was decided to amputate. The operation was performed (through the thigh) on the third day from the commencement of gangrene. Death from secondary hæmorrhage followed about two weeks after the operation. Examination of the limb after removal showed that the sac had given way at one point where it was very thin. In most it was filled by laminated coagula and the channel of the artery through it was very small.

Case 3.—The Westminster: Mr. Holt.—A man in good health, aged about 28, under care on account of a large popliteal aneurism in the left side. Pressure treatment was adopted and pursued with great care for several weeks. At first the tumour decreased in size and solidified, but it subsequently softened and enlarged. Appearing to be on the very point of ulcerating amputation of the thigh was performed about five weeks from the commencement of the treatment. The man recovered well.

Case 4.—St. Bartholomew's: Mr. Paget.—A man, aged 38, a weaver, in fair health and tolerably muscular, was admitted on September 14, with a large aneurism filling the left popliteal space. He had known of its existence a year, but it had not got large until within the last four months. It had recently been very painful. Its pulsations were very forcible. The girth of the knee round the tumour was 15 inches, that of the other knee being 13¼. Compression treatment by means of Signorini's tourniquets was commenced the same day. Steady decrease in size and solidification has since taken place. Under treatment.

EXCISION OF JOINTS.

Case 1.—St. Bartholomew's: Mr. Paget.—A delicate man, aged 23, the subject of old standing disease of the left elbow-joint. The swelling surrounding the articulation was very great indeed, and there were numerous fistulæ leading into it, and large scars of former incisions about it. Excision of the extremities of the three bones was performed on September 27. The incision adopted was the single longitudinal one parallel with the edge of the ulna, recommended by Langenbeek. The case is doing well, but there is as yet rather profuse suppuration.

Case 2.—The Westminster: Mr. Holthouse.—A girl, aged 17, admitted with both elbows stiffened by rheumatism in almost straight positions. She could not reach her mouth with either hand. The left being the worse, excision of its joint was performed in the usual manner, the H incision being adopted. Under treatment.

Case 3.—University College: Mr. Erichsen.—A boy, aged 12, in delicate health, under care on account of diseased knee-joint of two years' duration. Excision. Doing well.

Case 4.—The Middlesex: Mr. Moore.—A man, aged 26, in good health, under care on account of old disease of the knee-joint, there being anchylosis with great deformity. No sinuses existed. Disease had existed for fourteen years. Excision of the joint, the patella being allowed to remain. Death on the fourth day from constitutional irritation.

Case 5.—The Middlesex: Mr. Shaw.—A strumous girl, aged 14, in a very feeble state, the subject of diseased hip-joint, of two years' duration. Excision of the articular head and neck of the femur was performed. The femur had been dislocated several weeks. After the operation, the discharge was very profuse indeed, and the patient was with much difficulty kept alive. During the last few weeks, however, she has rapidly gained strength, and is now able to lift the limb from the bed.

OPERATION FOR UNUNITED FRACTURE.

The Dreadnought: Mr. Busk—A man, of middle age, in health, was admitted, with a fracture of the right humerus, which had occurred at sea three weeks before. After two months' treatment, it remained without the least union. The operation now performed consisted in exposing the ends of the bones, sawing them off, and then connecting their newly-cut extremities by a platinum wire. Hospital phagedæna attacked the wound, but was arrested. Subsequently, however, pyæmia occurred, and of this the man died five weeks after the operation.

REMOVAL OF EXOSTOSIS.

St. George's: Mr. Pollock.—A man, aged 23, in good health. Excision of an exostosis from the femur. Death from pyæmia.

ST. THOMAS'S HOSPITAL.

(OUT-PATIENTS' DEPARTMENT.)

AGUE TREATED BY THE DISULPHATE OF QUINIDINE.

(Case under the care of Dr. PEACOCK.)

During the course of the last year we gave a short notice of the result of the employment of the disulphate of cinchonine in the treatment of ague. Since that time Dr. Peacock has been in the habit of using the disulphate of quinidine in that disease. The remedy has been made use of in a large number of cases in persons residing at Plumstead or Woolwich, or who had been working in the marshy districts of Kent or Essex. In the majority of these cases the patients did not return to report the result of the treatment; but it may be inferred, that in most of them the disease was checked. Of 13 cases, however, Dr. Peacock has procured reports, and the results are as follows:—Of the 13 cases 2 were instances of quotidian, 9 of tertian, and 2 of irregular ague. The disease had existed in 9 of the cases for periods varying from a few days to three months, and in 4 other cases there had been attacks at intervals for from nine to thirteen months.

The quinidine was given in 1 case in doses of only 3 grains, but this was afterwards increased to 5 grains; in all the other cases, however, the dose given from the first was 5 grains, and in one case 6 grains, and the doses were repeated three times daily. In one instance 15 grains were given to a patient in whom the paroxysm was just coming on. The results of the treatment were highly satisfactory in all the cases, with the exception of two, in one of which there were attacks daily for eight days, and in the other slight chills continuing to recur daily for three weeks. In the other cases the disease was arrested either without any return taking place after the commencement of the remedy, or after only one, two, three, or four paroxysms had occurred.

In one case only was there a relapse, and in this instance the patient first applied in July, 1855, when he was treated by quinine. In October of the same year he had a return of the ague, which was cured by quinidine, and in April, 1856, he had a second return, which equally yielded to quinidine.

In the case in which 15 grains were given at the commencement of the paroxysm, the patient had a seizure on the third day after; the dose was immediately repeated, the attack proved very slight, and he had no return. From neither of these doses, or in any of the other cases, was there any headache, vertigo, tinnitus aurium, or any of the other symptoms which so frequently occur after the use of quinine. Dr. Peacock was, therefore, led to believe, that while the quinidine was, as an antiperiodic, nearly if not quite as efficacious as quinine, it was less apt to disagree, or to cause unpleasant nervous symptoms.

FATAL CASE OF CHLOROFORM.

One of the most important features in the following case is the circumstance that, after animation had apparently been procured by artificial respiration, a relapse took place and death occurred.

We have on former occasions directed attention to this occurrence in fatal chloroform cases, and adverted to the necessity of persisting with artificial respiration in all cases, until the recovery is certain and the restoration complete. It does not do to desist on the first voluntary efforts at respiration, or even to intermit for the shortest period.

There does not appear to have been anything in the man's condition which ought to have contra-indicated the use of chloroform. The means employed for resuscitation could not easily have been improved, and we must doubtless regard the case as one of the accidents of Surgery, which no care or skill can prevent.

The particulars of the case have been kindly furnished to us by Mr. Fowler, one of the House-Surgeons.

John Gibling, a sailor, about 30 years of age, applied at St. Thomas's Hospital with necrosis of one of the digital phalanges. He was told that the dead bone would have to be removed, and at once consented to the operation, on condition that he might have chloroform.

He did not appear to be in robust health, still there was no obvious reason against his having the chloroform, which was accordingly administered as follows. One drachm was poured on a sponge folded between two thicknesses of lint, and this held at a little distance from his mouth, while he was sitting in a chair. He appeared to be going off very comfortably, when the chloroform was left off for from half a minute to a minute, and then resumed. He now began to raise his hands, and tremble, and kept spitting into the lint, and appeared as if about to vomit. Suddenly he was violently convulsed through his whole frame, as in an epileptic fit. The chloroform was at once discontinued, and he was laid in a semi-horizontal posture. The convulsion only lasted for a few seconds, and when it had ceased he began to breathe with effort, and puffing of the lips, and almost immediately to gasp irregularly. His pulse was almost imperceptible and intermittent. Artificial respiration was at once performed by alternate compression and relaxation of the walls of the chest, the tongue being held out of the mouth by forceps. Ammonia was applied to the nostrils, cold water dashed in his face, and in about a minute he rallied so as to be able to breathe without assistance, but in a few seconds he relapsed, and could not be recovered. Artificial respiration of common air, and of oxygen, and a galvanic current from the nape of the neck to the region of the heart, were among the means employed.

It was afterwards ascertained that he had been a man of intemperate habits, and that he had had delirium tremens two or three weeks before, and that he had lost a large amount of blood from a small incision that had been made in the finger four days previous to his death.

He had however walked two or three times from the Mineries to St. Thomas's Hospital and back in the meanwhile, and his friends stated at the inquest, that on the morning of his death he was quite well.

At the post-mortem examination there was found to be fatty degeneration of the heart, liver, and spleen, and the membranes of the brain were thickened. The lining of the ventricles presented a peculiar pitted appearance, apparently form inflammatory deposit. The brain itself was pale.

THE PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

NORTH STAFFORDSHIRE INFIRMARY.

CASE OF EMPYEMA.—PARACENTESIS THORACIS.—DEATH.

(Under the care of Dr. WILSON.)

The subjoined case is reported by Mr. Gibbons, House-Surgeon, from the notes of Mr. R. C. Garner, the clinical clerk of the case :—

Charles Wareham, a collier, aged 30, of a sallow and emaciated appearance, admitted an in-patient under the care of Dr. Wilson, February 22, 1856.

He stated that he had had a cough and difficulty of breathing for eighteen months, and that he was gradually getting worse, and for the last twelve months had been unable to lie on the right side. Never spat blood, nor had any pain whatever in his chest. Been under medical treatment since the commencement of his illness.

On admission he complained of a frequent but slight cough with a copious yellowish and viscid expectoration; great dyspnœa, increased upon the slightest exertion; utter inability to lie on any side but the left; considerable œdema of the legs. On examination of the chest there was found to be a very evident enlargement of the left side, the intercostal spaces were raised to a level with the ribs, and the superficial veins very turgid; respiration was quite inaudible over the whole of the left side of the chest, both anteriorly, laterally, and posteriorly, with a slight exception under the clavicle; dull on percussion all over. The heart was displaced to two inches to the right of the sternum, and its sounds were audible all over the chest. A grooved needle was introduced between the sixth and seventh ribs in a depending situation; matter immediately squirted out, the needle was withdrawn, and a small trocar introduced, the canula being valved so as to prevent, as much as possible, the admission of air, and 98 ounces of healthy pus, of a palish green colour, evacuated. The aperture was closed with a pad of lint, and a bandage applied firmly round the chest. After the operation the breathing was much relieved, and he at once turned over on his right side. In the evening he was quite easy, and lying on his right side.

℞ Hydr. chlorid. gr. ij., opii gr. ¼, 4tis horis sumend.

23rd.—Easy; sound on percussion is clearer; respiration not audible.

24th.—Mouth slightly affected by the calomel; respiration can be heard a little behind; makes but little water. Omit the calomel and opium.

℞ Mist. diuretic. ℥j. ter.

29th.—Doing very well; can lie on any side; after a cough metallic tinkling is heard very distinctly, and, upon succussion, a splashing is heard in the chest. The puncture closed up; no discharge.

March 7.—A considerable bulging at the point where punctured; fluid apparently re-accumulating, as the sound on percussion is duller and respiration inaudible; breathing easy; lies indifferently on either side. To take a chop.

28th.—The chest now appears as full as before it was tapped, and he cannot lie on the right side as well as he did.

April 8.—The swelling considerably larger, fluctuating, and very painful.

18th.—The swelling considerably inflamed, and on the point of bursting; an opening made and six ounces of pus and a little clotted blood let out. No more matter could be got to flow, although the chest was evidently full.

12th.—Rather low; when the dressings were removed matter flowed freely from the puncture; appetite very bad; water dressing. To have eggs and anything he could fancy.

14th.—Discharges much; cough very troublesome; no sleep at night. Ordered a linctus for his cough and half-a-grain of morphia every night.

16th.—Much weakened by the great discharge; severe night sweats. Ordered as much sherry as he could take.

18th.—The discharge continues unabated, and is thick, sanious, and very fetid. Porter was ordered in addition to the wine.

30th.—Less discharge, and is somewhat stronger.

May 16.—Continues to be a great discharge, and the patient appears gradually sinking. Taken home at his own request, and died about a fortnight afterwards.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 141.—Age of Galen.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—In Mr. Bailey's "Records of Longevity," it is stated that Galen died about the year 271 A.D., *aged* 140.

What authority is there for the statement that Galen attained this extraordinary age? I am, &c.

Alfred Club, Oct. 25. G. G.

No. 142.—Howdy.

Sir,—I have seen various derivations for the north-country word "Howdy," a midwife. Here are some of them, which is correct?

It is said to be, 1, from "Jesus *hodie* natus est de virgine."

2. From "How do ye," the salutation from the nurse to her patient.

3. From the "How," a north-country term for the caul, or covering of the child's head by the membranes.

4. From the Norse "iód or yod," childbirth, from which comes the north-country verb to "howd."

I am, &c.

Bolt-court, Oct. 27, 1856. Samuel Johnson.

No. 143.—Ancient Inscriptions and Modern Sewage.

Sir,—A well known and highly-esteemed member of the Royal Institution, under the signature "A Retired Medical Officer," has just printed for private circulation some remarks addressed to Sir B. Hall and the Metropolitan Board of Works, which bear out your article on "Sewage Difficulties" quaintly and forcibly. I therefore annex them.

Oct. 25, 1856. I am, &c. A New Subscriber.

In no part of Europe is irrigation so well managed, or liquid manure more valued than in Lombardy. Around Milan, Parma, Mantua, Verona, Este, Ferrara, etc., five crops of artificial grasses are yielded in the season. The cattle are large, milk and cream are in abundance, and rich. The celebrated Strachino and Parmesan cheeses are produced in any quantity in those pasturages. Around Pavia and the Po fine rice and maize are in successful cultivation.

While such are the proceedings in France and Italy, how are we employed in England? In contemplating the formation of large tubular drains from London to Sea Reach, at an expense of five millions sterling, in order that all our agricultural treasures may there be squandered, wasted, and dispersed in the mighty ocean. Moreover, we are sending to the antipodes, are purchasing and conveying to England, at enormous expense of money and of health, the offensive guano, yet the last Census tells us, that in London alone there are two and a half millions of as fine penguins as any the Pacific can put forward. Why should not we, like our neighbours, turn such resources to the best account?

Some ancient inscriptions applying to these subjects are respectfully annexed. Over a ducal farm pit, near Ferrara :—

O! vile excrementum!
Stercus!—inutile non es!
Tu das alimenta, nutrimento meo."

In a large hotel, over the Cabinets à l'Anglaise :—

Tutto l' arte del buon cuoco
Viene finir in questo luogo.

And the gardens around demonstrated the superiority of the guano.

In an old work on London :—

Urbs sterilis! fructus agrorum, in stercora vertis;
Fertilis ager! in fruges, stercora vertis;
Tu victum debes, avido, vitamque colono
Debet stercoribus, non minus ille, tuis.

ANSWERS.

To 132.—Tanned Human Skin.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—In further answer to Mr. Gilbert (Notes and Queries, No. 132), I beg to say that my father was among the eccentrics. I remember that he was in possession of a piece of leather, which was made from the skin of the notorious Mary

Bateman, who was guilty of many murders by poison at Leeds, forty odd years ago. She was executed at York, and my grandfather gave a course (short) of anatomical lectures on her body at the Leeds Infirmary. I don't recollect who got the skin tanned; but I believe both he and my father were considered very odd in some things. My friend, Dr. Simpson, of York, informs me that he knew a person in London (about the Hospitals), who had a pair of boots made from the skin of a "subject," and which he constantly wore. There is no memoir extant of this strange individual, but it is only reasonable to suppose that he ended his days in an asylum.

I am, &c. RICHARD HEY.

York, October 21, 1856.

To No. 133.—LEPER HOSPITALS.

SIR,—The correspondents who have replied to your Query about Leper Hospitals do not seem to be aware that Mr. Wilde has exhausted the subject, so far as Ireland is concerned, in two of his Census volumes, the Status of Disease, and the History of Pestilences in Ireland. I am, &c.

Dublin, Oct. 27. M.R.I.A.

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Medical Times & Gazette.

SATURDAY, NOVEMBER 1.

THE LAST NEW MEDICAL REFORM BILL.

THE Heads of the Medical Corporations of England, Scotland, and Ireland have, at last, agreed upon certain amended proposals for a Medical Bill. This is so important a step towards the settlement of the long-vexed question of Medical Reform, that we submit the proposals in full, without present note or comment, for the consideration of our readers.

1. As far as possible, all existing rights and privileges shall remain untouched.

2. In England, the examinations in Medicine and its collateral sciences shall be conducted by a Board to be appointed by the College of Physicians and the Society of Apothecaries: —The examinations in Surgery and its collateral sciences, by the College of Surgeons:—The examinations in Midwifery by a Board to be appointed by the Colleges of Physicians and Surgeons, and the Society of Apothecaries, in equal proportions; the examinations in Scotland and Ireland to be conducted by the Colleges of Physicians and Surgeons.

3. Those who have passed the examinations specified in the foregoing clause shall be enrolled in the College of Surgeons, and shall be registered as members of that College, and Practitioners in Medicine and Midwifery.

4. "After the day of 185 , the Medical Registrar shall require proof from every person who applies to be registered as a Physician, that he has attained the age of years, and that he has graduated in Medicine in some University of the United Kingdom, or in some foreign University approved by the Medical Council, or that his case has been considered one for special exception by the Medical Council; and that he has been examined by, and has received letters testimonial from, one of the Royal Colleges of Physicians of England, Scotland, or Ireland."

5. A Medical Council for the United Kingdom, comprising branches for each division of the kingdom respectively, shall be established for the purpose of effecting uniformity of education in the United Kingdom; for regulating the several subjects on which candidates for the diplomas or letters testimonial of the respective Colleges shall be examined; for determining as to the fitness and efficiency of Medical Schools seeking recognition; and the mode of the annual publication of the Register of legally qualified Practitioners.

6. The Council shall consist of the Secretary of State for the Home Department, and of the representatives of the parties to this Bill; the heads of which have been settled by the Medical Corporations of England, Scotland, and Ireland.

7. All persons who have not taken degrees in Arts or Medicine, shall be required to produce satisfactory proofs of their having received a good general education.

8. A Registrar shall be appointed by the Council. Physicians shall form a distinct class on the register.

9. The expenses of the Council, including those of the register and the salary of the Registrar, shall be defrayed by a per-centage on the fees received by the Colleges from persons examined.

10. All persons resident in the United Kingdom shall transmit their claim to be put upon the register to the Registrar for their division of the United Kingdom, within the period of six months from the passing of this Act.

11. All persons absent from the United Kingdom shall transmit their claim, as in the preceding clause, within six months of their return.

12. The Council shall have the power of determining in all cases as to the legality of a claim to be put upon the register.

13. No register shall be published without the sanction and authority of the Council.

14. The register shall contain the name, residence, and qualifications for practice of every person now practising in Medicine, Surgery, and Midwifery, reserving to all Practitioners the rights they possessed previous to the passing of this Act.

15. If uniformity of qualification be established, as nearly as may be found practicable, in each order of the Profession respectively, the members of each order shall, on change of residence, be enrolled in the corresponding College of each country, reciprocally, without further examination, on payment of an admission-fee; and perfect reciprocity of practice shall in this manner be effected.

16. Every person registered under this Act shall be entitled to demand and recover in any Court of Law, with full costs of suit, reasonable charges for medical and surgical aid, advice, visits, and medicine, rendered or supplied by him to his patients.

17. After the day of no person shall be entitled to recover any charge in any Court of Law, for any medical or surgical advice, attendance, or for the performance of any operation, or for any medicine prescribed, administered, or supplied by him, unless he shall prove upon the trial that he is registered under this Act.

18. After the day of no person shall hold any appointment as a Physician, Surgeon, or other Medical Officer, either in the military or naval service, or in emigrant or other vessels, or in any Hospital, Infirmary, Dispensary, or Lying-in Hospital, not supported wholly by voluntary contributions, or in any Lunatic Asylum, Gaol, Penitentiary, House of Correction, House of Industry, Parochial or Union Workhouse or Poorhouse, Parish Union, or other Public Establishment, Body or Institution, or to any Friendly or other Society for affording mutual relief in sickness, infirmity, or old age, or as a Medical Officer of Health, unless he be registered under this Act.

19. Every person who shall wilfully and falsely pretend to be or take or use the names or title of a Physician, Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine, Surgeon or Apothecary, or any name, title, addition or description implying that he is registered under this Act, or that he is recognized by law as a Licentiate in Medicine and Surgery, Physician, or Surgeon, or Apothecary, or a Practitioner in Medicine, shall, on being summarily convicted of every such offence before any two Justices of the Peace for

the county, city, or place, or in Scotland before a Sheriff of the County or before the Justice of the Peace Court for the District in which the offence was committed, pay a sum not exceeding £20, nor less than £5, to be recoverable as hereinafter described, together with all costs.

20. Any two justices of the peace acting in and for the county, city, or place in which the offence has been committed, may hear and determine any complaint made under the next preceding clause, on the oath of one or more witnesses, or by the confession of the accused party, and shall award the penalty or punishment herein provided for such offence; and in every case of the adjudication of a pecuniary penalty and of non-payment thereof, it shall be lawful for the said justices, or in Scotland for the said sheriff or justice of peace court, to commit the offender to any gaol or house of correction within their jurisdiction, for a term not exceeding six calendar months, the imprisonment to cease on payment of the sum due.

21. If any person shall wilfully procure, or attempt to procure himself to be registered under this Act, by making, or producing, or causing to be made or produced, any false or fraudulent representation or declaration, either verbally or in writing, every such person so offending, and every person aiding and assisting him therein, shall be deemed guilty of a misdemeanour in England and Ireland, and in Scotland of a crime and offence, and shall, on conviction thereof, be sentenced to be imprisoned for any term not exceeding twelve months.

22. Every person who shall be registered under the provisions of this Act shall be exempt, if he shall so desire, from serving on all juries and inquests whatsoever, and from serving all corporate, parochial, ward, hundred, and township offices, and in the militia; and the name of such person shall not be returned in any list of persons liable to serve in the militia, or in any such office as aforesaid.

It is evident that there is abundant room for discussion upon the details of this measure, but we trust that a spirit of mutual concession will prevail, and that the representatives of the parties to this bill will lay aside all questions of individual interest, and honestly endeavour to work together for the general good of the Profession.

THE WEEK.

The Medical publishing season has set in with unusual activity. We have received this week from Mr. Churchill five new editions of standard works, in addition to the concluding part of the second edition of Maclise's Surgical Anatomy. Fownes' Manual of Chemistry has reached the sixth edition, while Carpenter's Manual of Physiology and Forbes Royle's Manual of Materia Medica have each attained the third edition. This large and rapid sale is a conclusive test of the estimation in which the beautiful series of Manuals, of which these useful works form a part, continue to be held. The second edition of Maclise's Surgical Anatomy, now complete, is by far the cheapest illustrated Medical work ever published in this or any other country. A second edition of Dr. Todd's Clinical Lectures on Diseases of the Brain, and a third of Dr. Williams's Principles of Medicine are also among the new editions of the week. Messrs. Walton and Maberly have brought out a third edition of Dr. Kirkes's well-known Handbook of Physiology, which has been carefully revised. It is remarkably well got up and illustrated, and will doubtless acquire additional popularity.

A move is being made by the Dentists to improve their Professional position in a social point of view, but it seems they are not all agreed how to do it. Some of the leading members of the Profession in London wish to connect the great body of their brethren with the College of Surgeons, and have forwarded a Memorial to the Council of the College, requesting that an examination in Dental Surgery may be instituted, and a diploma granted to those found qualified. But many highly respectable dentists object to this Memorial, and on grounds which are certainly worthy of consideration. They say a man may be a good practical dentist without knowing anything of Anatomy, Physiology, or Surgery—that a profound knowledge of all these could not make any man a dentist—that the College of Surgeons is not the body to institute an examination in the mechanical details of the dental art—and that it would be far better to establish a College of Dental Surgeons on the model of those in such successful operation in America, than to endeavour to obtain a false position by a diploma from the College of Surgeons. How the College of Surgeons may reply to the Memorial we need not inquire; but we should be glad to see the answer delayed until after a General Meeting of Dentists from all parts of the country, which is to be held next month.

The Metropolitan Board of Works has determined by a majority of 24 to 7 to submit to Sir Benjamin Hall a plan for emptying the sewage of London into the Thames at Half-way Reach. Thus, it has avoided the question of utilizing the guano deposited by the 2,500,000 inhabitants of the Metropolis; and though, by leaving the question of deodorization open, it escapes the actual opprobrium of advising the pollution of the Thames and the waste of agricultural treasure, yet by spending a year in unsuccessful attempts to solve a question confessedly difficult, and at last by doing, not what was required by the spirit, but the very least it was compelled to do by the letter, of the Act of Parliament, it acquires a very unenviable reputation. No drainage scheme ought to be thought of for a moment which does not ensure the purification of the Thames, and the utilization of the sewage matter.

A case has just been decided at Liverpool of some importance to Surgeons and owners of emigrant vessels. Mr. A. S. Stone was engaged to go as Surgeon of the Westervelt emigrant ship to New York in charge of 344 persons for a salary of £23! But as this was thought to be too munificent a remuneration for a professional gentlemen, Mr. Stone was required by the Captain to perform the duties of Steward in addition to those of Surgeon—to give out water and provisions, and exercise a general supervision over the passengers. He refused to do this, was put ashore, and the captain sailed without him, thus contravening the 41st Section of the Act for the regulation of passenger ships, and rendering himself liable to a penalty not exceeding £100. A penalty of £25 and costs was inflicted, which, we trust, will prove a warning to Captains and owners of emigrant vessels.

Mr. Griffin carries on most vigorously the campaign in favour of his Poor-law brethren. He has caused a circular to be addressed to each Poor-law Medical Officer in England and Wales, requesting an answer to a series of questions relating to their salaries, the amount of their duties, the nature of their appointment, their expenses, their allowances for extras, and many other particulars, which are necessary for arriving at correct statistical results. It is requested that these questions may be answered in the course of a month, and it is to be hoped that each Union Surgeon will support the cause by contributing the information required. Mr. Griffin has also addressed to the Poor-law Medical Officers a letter containing many very striking facts, and some strong arguments. Among the former it may be stated, that out of 567 Unions in England, most of the officers from 335 have joined the Poor-law Medical Reform Association; and a similar proportion from 13 out of the 44 Unions in Wales. Many of the officers from the local incorporations and the Gilbert Unions have likewise joined the Association; but there are still 229 Unions and 56 local incorporations which have not noticed the appeal made to them. A few Medical Officers have refused to join the movement, because they state that they are

well treated by their Guardians; but it is urged, that this constitutes a very strong reason why they should join in the attempt to help their less fortunate brethren. Among the arguments adduced against the repeated assertion that the salary of the Poor-law Officers is reduced by the over-competition of the Profession itself, it is urged with great force that if the different offices of the Poor-law Board at Whitehall were thrown open to public competition, a multitude of barristers might be found who would anxiously accept the vacant posts at half the salaries paid to the present occupants; but the Government never dreams of adopting such a plan. Why then should a system be pursued with the Medical Profession which is never attempted in the Law? We are glad to find that so much has been already accomplished in favour of the Poor-law Medical Officers, and we feel convinced that it is necessary only to continue the present exertions in order to crown the cause with triumphant success. "Pressure from without," says Mr. Griffin, "seems now-a-days the goad to obtain justice; this we must apply."

An instance of poisoning, not, however, attended by fatal results, has just occurred at Ottley, in Yorkshire, where about a dozen young children were seized with violent illness after eating the seeds gathered from some laburnum trees which had been cut down in the neighbourhood. The administration of emetics was attended with beneficial results. It is not, perhaps, generally known that the seeds of the laburnum are poisonous, but this tree (Cytisus Laburnum), belonging to the natural order of Leguminosæ, presents an exception to the general character of the order, all the rest of which are either wholesome or innoxious.

An information has just been preferred by the Apothecaries' Hall of Dublin against a gentleman qualified to practise as a Physician and Surgeon, but compounding Medicines without possessing a licence to practise as an Apothecary. The Irish Apothecaries' Act differs very essentially from that of England, inasmuch as the former secures to the Licentiates of the Dublin Apothecaries' Hall the exclusive privilege of keeping shops and dispensing Medicines; and, if this privilege is invaded, the offender may be proceeded against either by civil action or by indictment. The Irish Apothecaries, therefore, combine the functions of the French *Pharmacien* and the English Chemist and Druggist, with those of the Medical Practitioner. In the case now alluded to, the Governor and Company of the Dublin Apothecaries' Hall proceeded against the offender by criminal indictment, and succeeded in lodging the information, and sending the case for trial at the ensuing Ennis Assizes. It is believed that the trial will be rendered unnecessary by the defendant, who is quite qualified so far as Medical study is concerned, presenting himself for examination for the Apothecaries' licence, as the Dublin Hall has disclaimed any vindictive feeling in the course which they have thought it right to pursue. It appears that the prosecution to which we now allude, and another which lately took place, resulted entirely from a wish on the part of the authorities in the sister kingdom, to place some wholesome restrictions upon the indiscriminate traffic in drugs.

Week after week we have to record cases showing the necessity for restricting the dispensing of medicines, and the sale of poisons, to qualified and licensed persons. The Pharmaceutical Society takes advantage of the agitation to contend for more extended powers; and there cannot be a doubt that much good would be effected by confining the sale of poisons to persons who have passed some examination as to their character and qualifications. But even then we must decide what is and what is not poison; and here we are glad to see the *Times*, in the following passage from the leader of Tuesday last, adopting a suggestion we threw out a fortnight ago, (page 398):—"Clumsy as the expedient may be, we have not as yet heard of any better suggestion than that a schedule should be formed of the most virulent poisons (with power to some competent authority to add to this schedule from time to time), and that the sale of the enumerated poisons should be prohibited, save under prescribed conditions. Many small suggestions have been made besides; for example, that an active poison should never be given but with the formality of signature in a book kept for the purpose. Again, it has been proposed, for the prevention of more mistakes, that poisonous mixtures and drugs should be sent out in bottles of a peculiar shape, and under paper covers of a particular texture and colour."

It is not often that the *Times* condescends to enter upon the question of Medical Reform, but this week the subject is sketched with a few bold touches at the end of a leading article as follows:—"We are not very sanguine of results upon any reform in which the Medical Profession is concerned. Discussions upon this subject arise every four or five years; they are carried on with terrific fury for a few months; nothing is done, and things go to rest for another period of five years. At present a man may practise as a Physician in England where he will, on the strength of a degree purchased for an almost nominal sum at a German University, and practically there is no power which can interfere with his proceedings. As a Surgeon he may also do what he likes. If he chooses as a matter of luxury to arm himself with a diploma from the College of Surgeons, that is quite a matter of taste. He may also set up an apothecary's shop and dispense all drugs, poisons included, at his own pleasure."—Yet, we would observe, if any one talks of a State registration of qualified Practitioners, or any legal check upon unlicensed persons or ignorant pretenders to Medical knowledge, the press cry out that the liberty of the subject is in danger. "No popery" is a cry of the past—now we have "No monopoly"—"No centralization"—"Free trade in Physic"—"Free trade in Poison."

Dr. Pincoffs has published a letter to the Duke of Cambridge this week, advocating the establishment of thermal establishments, or Military Sanatoria, in the neighbourhood of springs of mineral water. Such establishments are maintained in connexion with the Army Medical Departments of France, Germany, and Italy; and Dr. Pincoffs publishes letters from eminent Army Surgeons in those countries, expressing great faith in the utility of mineral waters to invalid soldiers, and much surprise at hearing that there are no such Sanatoria in England for the use of sick or wounded officers and soldiers. The results observed in France show that a very large percentage of recovery is reported in the Military Thermal Hospitals, especially in cases of rheumatism, skin diseases, diseases of the mucous membrane, and in old wounds and ulcers. We see great objections to adopt Dr. Pincoffs' proposition of sending our soldiers to Aix-la-Chapelle; but believe that the experiment lately made at Bath might be carried out advantageously at Buxton, Cheltenham, Harrogate, and near some of the mineral springs in Scotland and Ireland. Of course, at the new Military Hospital at Southampton, hot and cold sea-water baths of all kinds will be made available.

We publish a letter from Mr. Clarke, of Lynton, which serves as another illustration of the necessity for some reform in our Coroners' Courts. Frequent cases of murder or suicide must escape detection from the slovenly manner in which many coroners fulfil their duties, and their objection to employ Medical witnesses. It is quite time that our antiquated system of inquests should be assimilated with that of Scotland.

REVIEWS.

Guy's Hospital Reports. Edited by Samuel Wilks, M.D., and Alfred Poland. Third Series. Vol. II. London. 1856.

The present series of Guy's Hospital Reports contains a great variety of information on many subjects connected with Medicine and Surgery. The ample field of experience afforded by the practice of the Hospital has furnished an abundance of contributions in Pathology; but there is hardly a department connected with the Profession which does not receive some illustration in this very comprehensive volume. The extent and value of the information may be estimated by a glance at the contents and the names of the contributors. We find for instance, a Report extending over seven years, of the cases of Midwifery admitted to Guy's Lying-in Charity, and a Report of the Lying-in Charity for twenty-one years, presented by Dr. Lever and Dr. Oldham; a Report of the Post-mortem examinations of the cases of Fever which have died in the Hospital during the last two years, by Dr. Wilks, who completely confirms the views now generally entertained of the Pathological distinctions, seen after death, between Typhus and Typhoid Fevers; a short Report of the Post-mortem appearances in the Cases of Burns which have proved fatal in the Hospital during the last year and a-half, with especial reference to the condition of the duodenum, also by Dr. Wilks, who has likewise contributed a very valuable Report on Lardaceous Disease and some allied affections; there are three cases by Dr. Hughes, in one of which he found black urine, due to the administration of creosote, a circumstance which had been previously observed by some other Physicians. Dr. Gull contributes sixteen cases of Paraplegia, caused by tumours on the spinal cord, by arachnitis of the cord, by softening of its texture, and other lesions; and the same physician has a paper on the Parasitical Vegetable Nature of Pityriasis Versicolor. Dr. Habershon communicates a paper on Dysphagia, illustrated by some cases of disease of the Œsophagus and Pharynx. Dr. Pavy records some curious experiments upon the power possessed by the gastric juice to dissolve the tissues of living animals; and in another paper he makes some remarks upon the Physiological effects of Strychnia and the Woorali poison; and Dr. Odling, who is one of the Metropolitan Medical Officers of Health, has two papers, one on the Alkaline Emanations from Sewers and Cess-pools, and another on the Detection of Antimony for Medico-legal purposes. The contributions on Surgery comprise a case of Myeloid tumour of the Scapula, by Mr. Cock, with a coloured plate of the appearance of the growth; a paper on Hernia, with an analysis of One Hundred and Twenty-six fatal cases by Mr. Bryant; and papers by Mr. France on the Use of Atropine in Iritis and on Artificial Pupil. There is one paper on Physiology, by Dr. Habershon, who makes some very suggestive observations on the Abdominal Sympathetic Nerve, and on the Union of the Phrenic and Pneumogastric Nerves, and he gives a plate representing a dissection of the semilunar ganglia and solar plexus and their connections with the phrenic and pneumogastric nerves.

The longest paper in the series, and one which will, no doubt, be read with great interest, is on Poisoning by Strychnia, with comments on the Medical evidence given at the Trial of William Palmer, by Dr. Alfred Taylor. This celebrated trial, which excited so much attention in the public mind, will ever remain one of the most extraordinary medico-legal investigations on record; and now that the general excitement has in some measure died away, the case is still remarkable for its chemical and physiological features. Dr. Taylor has suffered great and unmerited obloquy for the part which he took in the Palmer trial, and in his present elaborate paper he completely justifies his character as a toxicologist, and as an authority in medico-legal science. Premising that those who wish to travel again over the controversial ground occupied by Dr. Taylor and his opponents, will find ample reason to admire the conduct of Dr. Taylor throughout the long, protracted, and vexatious proceedings which have been recorded at length from time to time in this Journal, we may point out some of the more interesting scientific facts in relation to strychnia poisoning which have been developed by the trial. In the first place, it must be observed that death from strychnia has hitherto been very rare, only fifteen fatal cases having been recorded in nineteen years, and of these only eleven, previous to Cook's case, occurred in this country. These cases are all carefully tabulated by Dr. Taylor, who shows in each case the dose taken, the symptoms observed, the period of death, the post-mortem appearances, the analyses, if any, of the poison, and the results. Another point of interest is the question of the fulness or emptiness of the heart after death from strychnia, that organ in Cook's case having been found empty; whereas it was alleged that in the case of the lower animals killed by strychnia, the right side was found full of blood. The result of inquiry has been, that in ten inspections in fifteen fatal cases of poisoning by strychnia in the human subject, the heart was either found empty, or not containing any abnormal quantity of blood. Again, it was asserted that strychnia, although a vegetable poison, underwent no change by absorption into the system, and it was contended that such a view was a novel one, and at variance with general belief. Liebig, however, distinctly entertains and has expressed an opinion that the vegetable alkaloids are absorbed and decomposed in the system, and the idea of their immutability is the novel doctrine which has yet to be established. Orfila and Dr. Christison have not mentioned any process for extracting strychnia from the animal tissues, and without disputing the assertions of those who allege that they have discovered the poison in incredibly small quantities in all parts of the body, including the bones, it must be admitted that these experiments require confirmation before they can be received as scientific truths. In Cook's case, too, it must be recollected that the stomach was sent to London, cut from one end to the other, and turned inside out, a statement solemnly repeated by Dr. Taylor; and it is quite probable, as is now suggested, that the deceased having been poisoned by solid pills, these may actually have escaped from the stomach during the inspection, although they had been sufficiently dissolved to complete their fatal purpose during life. This supposition is rendered probable by experiments recently made by Mr. Devonshire and Mr. Horsley on a cat and a dog. The strychnia was given to these animals wrapped in paper, and after they had died from the effects of the poison, the strychnia (in the cat) was found still wrapped up in the paper; although, of course, a sufficient quantity had been absorbed to cause death.

We can only observe, in conclusion, that the present series of Guy's Hospital Reports is in every respect equal, and in many points superior, to any of its predecessors.

On the Nature and Treatment of Club-Foot and Analogous Distortions involving the Tibio-tarsal Articulation. By Bernard E. Brodhurst, Assistant-Surgeon to the Royal Orthopædic Hospital. Pp. 134. London: 1856.

The progress of Orthopædic Surgery is one of the greatest triumphs of the present century. In the year 1806 Sartorius performed the section of the tendo-Achillis with doubtful success; Michaelis, of Marbourg, in 1809 operated on a young man for talipes equinus; in 1816, Delpech divided the tendo-Achillis for this affection; and fifteen years after the operation of Delpech, Stromeyer first divided the same tendon. The circumstance which was probably most instrumental in introducing the operation of tenotomy for club-foot into this country was the fact of Dr. Little, who was himself afflicted with this distortion, placing himself under the care of Stromeyer, and undergoing successful treatment at the hands of that distinguished Surgeon in 1836. Dr. Little chose for his inaugural dissertation at Berlin the subject of Talipes Varus; and in February, 1837, he first divided the tendo-Achillis in this country. Since that period the safety and efficacy of subcutaneous tenotomy in club-foot and analogous distortions have been generally recognised; and wherever Surgery is practised the operation has been performed with the most happy results. The fear of inflammation or other ill consequences from the division of tendons has been dissipated; the mode of reparation between the cut surfaces has been carefully studied; and by the skilful performance of the operation itself, and the subsequent application of suitable mechanical adjustments modern Surgeons have succeeded in correcting some of the worst deformities which afflict the human frame.

Mr. Brodhurst's contributions to Orthopædic Surgery have already been made known to the Profession, through the medium of this Journal; and the work before us is an expansion of a series of articles which have appeared in our pages. He has done good service by thus collecting his observations and publishing them in a separate form.

The book is divided into six chapters, the first of which is devoted to an historical introduction upon the origin and progress of Orthopædic Surgery. In the second chapter the genus Talipes is described, with its species, varus, valgus, calcaneus, and equinus—varus being by far the most common. The third chapter contains a *résumé* of what is known in relation to the etiology of Congenital Talipes; but it must be admitted that our knowledge upon this point is very imperfect. The author attributes much importance to maternal emotion acting upon the fœtus in utero; but, without disputing the probability of this explanation, it is far from being a philosophical solution of the difficulties of the question. The fourth chapter contains the etiology, physiology, diagnosis, prognosis, and pathological anatomy of Non-Congenital Talipes, the Talipes Equinus being the most common form of the non-congenital distortions. The different causes of Non-Congenital Talipes are discussed under the heads of paralysis, spasm, inflammation, voluntary position, and debility. In the fifth chapter is considered the very important question of the mode adopted by Nature for the repair of divided tendons; and Mr. Brodhurst gives the results of his own experiments on this point, performed upon rabbits, by which it appears that the cut surfaces, which are first separated by a considerable interval, gradually approximate, and become united by an intervening fibrous matter, ultimately continuous with, and undistinguishable from, the original tendinous structure. The sixth chapter contains the modern system of treatment adopted in the cure of Club-foot. This consists, as is well-known, of two distinct proceedings—the division of the tendons, the shortening of which produces the deformity, and the subsequent adaptation of mechanical appliances to restore the healthy functions of the limb. Our limits will not allow us to describe the different operations performed in the various species of Club-foot, which, according to circumstances, require the division of the tendo-Achillis, the tibialis posticus, the tibialis anticus, the plantar fascia, the peronei, and many other structures. It is sufficient to state, that the anatomical conditions of each case are well described, and the Surgical measures are carefully pointed out.

The descriptions of the letter-press are admirably illustrated by numerous engravings, executed in Mr. Bagg's best style; and we can recommend Mr. Brodhurst's work as giving an excellent epitome of the nature and treatment of the very common deformities of which it treats.

Tubular System of Supporting Artificial Teeth. By Charles Stokes, M.R.C.S. 8vo. pp. 24. London: 1856.

Mr. Stokes says:—"That the destruction of the dental tissues depends, as a rule, upon chemical action, is a conclusion to which I am led by the experience of many years; by an attentive consideration of the circumstances under which it arises; and also by observing under what conditions this change of structure may be controlled. Thus, the decomposition of the softened food, and its retention round the teeth, by the bands or clasps, in the condition of a sensibly acid matter, is, I believe, the originating cause of the loss of teeth, following the use of artificial substitutes."

The remedy proposed by Mr. Stokes is, to prevent the accumulation of this acidulous pulp; that is, by "substituting for the unsightly and destructive clasps, usually employed, small vertical gold tubes, in which are introduced well-adjusted pieces of compressed wood; which, being in contact with the opposing sides of the teeth on which they rest, grasp them with great firmness, and give complete security from accident, or inconvenience of any degree whatever."

In Mr. Stokes' pamphlet plates are introduced which explain the nature of the improvement which he has introduced. The principle is simple, and we should be glad to hear that it proves an efficient remedy for the evil which is so serious an objection to the use of artificial teeth.

Health and Beauty; or, Corsets and Clothing constructed in accordance with the Physiological Laws of the Human Body. By Madame Roxy A. Caplin. London. 1856. 8vo. Pp. 83.

Madame Caplin is a fashionable staymaker. She thinks Medical men know nothing about stays, and hits Dr. Copland very hard and all those who argue that because bad stays lead to certain evils good stays should be discarded. It appears that there are quacks among staymakers: "corset making has fallen into the hands of quacks—that is, of people who do not understand their profession."—P. xi. Madame Caplin's "busks are all electro-magnetic, and also protected by a non-conducting substance." They are made by "geometrical measurements," after "elaborate calculations," and so on. Who would not send his wife or daughter for an elaborate, geometrical, electro-magnetic, non-conducting pair of stays?

Seriously speaking, however, there are a great many really valuable directions and a good deal of sound common sense in the chapters on the dresses adapted to infancy, and the clothing from the ages of one to twelve and twelve to eighteen years, and we were beginning to wonder where the geometrical, electro-magnetic staymaker acquired so much very useful information, when a foot-note explained this secret, and enlightened us as to another mode of making money in London. "This is only one of scores of similar contrivances which *Doctor* Caplin has adapted to every age, sex, or weakness." "A visit to the Royal Hygienic Gymnasium, 9, York-place, Portman-square, is respectfully solicited from all who desire further information on this matter." It seems, then, that the Doctor conducts the Gymnasium in York-place, and the fair Geometrician has an Anatomical and Physiological gallery, where ladies can study "gestation in all its stages, and all the wonderful phenomena of parturition" in Berners-street. Here also art supplies what Nature denies to ladies who are "what is generally termed thin." There are two lines of an old song in which the hard case of a man is bemoaned, who

> Instead of woman's, heavenly woman's charms,
> Clasps buckram, cork, and varnish in his arms.

The fashionable staymaker puts the case more delicately, and hints to middle-aged ladies, "generally termed thin," that "those who know precisely how the bones should be clothed can easily supply the appearance of what Nature has denied, and if they cannot give the freshness of youth, they can at least impart the external proportions of mature life."—P. 67. Verily the hygienic gymnastic Doctor and the geometrical electro-magnetic corset-maker open out new views of Life in London in this pretty book on Health and Beauty, bound in green and gold, with evident reference to the wealth and gullibility of the ladies who are invited to York-place and Berners-street.

Handbook of Zoology. By J. Van der Hoeven, Professor of Zoology in the University of Leyden. Vol. I. Translated from the second Dutch Edition by the Rev. Wm. Clark, M.D., F.R.S., Professor of Anatomy in the University of Cambridge. Cambridge and London. 1856. 8vo. Pp. 853.

The first volume of this very learned work includes the invertebrate animals, in accordance with the plan of the author to proceed from the simpler forms of animals upwards to the highest. It differs from most other zoological works in the much larger amount of anatomical information it contains. The vast erudition of the author, and his untiring industry during nearly thirty years that he has filled the Chair of Zoology at Leyden, have acquired for his work an European reputation, and Professor Clark has deemed that the best assistance he could afford to those students of Comparative Anatomy and Physiology who have a special regard to Zoology would be to place this work within their reach. The Author and Translator have worked together cordially, and have produced a work which must command the attention of all those who in this country cultivate the study of Zoology.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE TYPHUS OF THE CRIMEA.

By M. BAUDENS.

M. Baudens, in a communication made to the Académie des Sciences, states that all the medical men of the Army of the East are convinced of the non-identity of typhus and typhoid fevers.

1. As regards *etiology*, it is generally agreed that both of these are produced by organic miasmata. At all events, this is incontestable in the case of typhus, which is engendered by want and over-crowding, and might be produced or removed at pleasure. It is not so with typhoid and epidemic diseases,

such as cholera, which, do what we will, appear with fatality, and disappear again without our knowing why. Once produced spontaneously from these causes, typhus is propagated by infection. Contagion, however doubtful with respect to typhoid, is incontestable in typhus. At the ambulance of the 1st division of the 3rd corps, almost all the hospital *personnel*, almost all the soldiers admitted for other diseases, and 15 out of 16 medical practitioners took typhus. Between the Crimea and Constantinople, 37 practitioners, 20 Sisters of Charity, 8 almoners, and numbers of infirmary attendants, died of typhus poisoning. Ordinary epidemic maladies differ from typhus in having only a temporary duration, dependent upon atmospheric conditions, while typhus lasts until we have removed the source of infection. The incubation of the organic miasmata seems to occupy a mean of six days. The cases in which it was slow and progressive almost always proved fatal.

Progress.—The progress of the typhus of the Crimea has been less uniform and regular than that of the typhus so well described by Hildebrand. The irregularity of that of the Crimea depended upon different causes, among which are principally the prevalence of scorbutus, dysentery, and intermittent fever. From January, 1856, the typhus which had begun to appear the preceding year, became very prevalent; but during the later period of the siege of Sebastopol, hospital gangrene, the typhus of the wounded, made great ravages. Contagious typhus only awaited the concentration and accumulation, which the winter naturally led to, to burst forth. The soldiers squatted in their hermetically sealed tents, the floors of which were impregnated with all kinds of impurities, were submitted to the action of organic miasms.

Treatment.—The incessant renewal of fresh air was the primary consideration. The inflammatory period was regarded as an effort of nature to expel the poison by giving rise to an exanthematous eruption. Bleeding was only resorted to when the patient was very strong or there was fear of apoplexy; and leeches to the mastoid process or cupping between the shoulders were preferred to general bleeding. These were resorted to also, when the smallness of the pulse indicated the oppression of the vital forces, which were aroused again into energy after a moderate bleeding. When from the commencement, as in this typhus of the Crimea, there are remittent paroxysms, they should be cut short by some doses of quinine, in order that the continuity of the fever might be re-established, when, after some days, the severity of this decreases, if not kept up by any organic accidental lesion. This complication has often occurred when care has not been taken from the first to dissipate all paroxysmal action. At the commencement, an emetico-cathartic has been found useful, especially when gastro-intestinal *embarras* was present. Mucilaginous or acidulated drinks, or even wine and water were administered, and afterwards tonics.—*Comptes Rendus.*

SOFTENING OF THE CORNEA IN PUTRID FEVERS.

By Professor TROUSSEAU.

Ramollissement of the cornea is a serious affection met with in certain forms of disease, accompanied by cerebral disturbance. Prof. Trousseau states that he was a considerable time before he discovered the mechanism of its production; but he believes he has succeeded in so doing and in suggesting a simple means of prevention.

In severe fever we often see patients lie with their eyes half opened, the globe being almost always carried upwards, and the transparent cornea hidden entirely. Here, the absence of the winking movement only leads to inflammation of the mucous membrane of the eye; for although such inflammation may be due to the same general cause which produces it in other mucous membranes, yet that it must become aggravated by the absence of winking may be assumed from the irritation, going on sometimes to ulceration of the cornea, that is produced in persons suffering from paralysis of the 7th pair. In bad fever, when the stupor is excessive and prolonged, the eyes of the patient remain day and night in a condition analogous to that of individuals suffering from paralysis of the 7th pair. Moreover, in these fevers sensibility is blunted, and the irritation produced by the contact of the eye with the conjunctiva is not perceived, and the necessity of winking no longer is felt. The same thing occurs to the eyes as to the nares which become pulverulent. They are filled with the foreign bodies that float in the air; because the patient, not being conscious of the irritation such bodies ordinarily produce, makes no effort to rid himself of them.

There are also in these grave fevers, special conditions, quite independent of the physical condition already alluded to. By virtue of circumstances, at present very imperfectly understood, the mucous membranes become the seats of semi-active, semi-passive, congestions which easily go on to inflammation or even to sphacelus. Thus, ophthalmia, coryza, angina, laryngitis, phlegmasia of the genital organs, especially in young girls, are common accompaniments of septic pyrexiæ, so that the cornea, become inflamed by the absence of winking, easily passes into a state of ramollissement, a kind of gangrene of that membrane.

M. Trousseau relates two cases in which he arrested the progress of commencing softening, and the irritation induced by exposure of the conjunctiva, by completely closing the eyes, covering them with pledgets of cotton wool, and applying over these a bandage with moderate firmness.—*Archives Générales*, Tome VII., p. 460.

ON THE CHANGES IN THE CAPILLARIES IN APOPLEXY.

By M. ROBIN.

The following are the conclusions of a memoir recently presented by M. Robin to the Académie de Médecine :—

1. The pathological anatomy of the capillary vessels in individuals who have suffered from cerebral hæmorrhage, exhibits a constant special alteration in their walls, and that when no calcareous incrustration exists in the vessels visible to the naked eye. When such incrustation does exist, the vessels smaller than those incrusted with salts of lime present the alteration treated of in this memoir as in the other cases. 2. This alteration, commencing in the most delicate capillaries, gradually extends to larger and larger vessels, and especially to the arteries, proceeding from the internal towards the external surface of their walls. 3. The alteration observed in apoplexy is the same that is observed in the capillaries in aged persons, and even in many adults; but it constitutes a more advanced phase of it, becoming sooner or later the cause of the rupture either of the capillaries or the arterioles, and consequently of the effusion of blood. 4. When such morbid accidents occur, the alteration has already existed for a more or less long period, but not in a degree sufficient to deprive the vessels of their natural resistance. 5. The lesion consists in the deposition of fatty granules within the substance of the walls of the vessels, replacing the homogeneous, transparent, and tenacious tissue, by an agglomeration of minute fatty corpuscles, which are simply contiguous and offer less resistance in proportion to the number in which they are accumulated. The anatomico-pathological study of the vessels in apoplexy allows of the establishment of a very close connexion of great practical import, between the normal condition of the vessels and their gradual modifications with the progress of age, attaining the morbid state more or less soon, according to the rapidity of the evolution. The knowledge of this gradation between the normal and pathological conditions is one of the constant results of the anatomico-pathological study of all the tissues of the economy which best enables us to attach the symptom to the corresponding lesion.

Bull. de l'Académie, Tome XXI., p. 748.

EXCERPTA MINORA.

Chilblains and Chaps.—The following application is strongly recommended :—It is to be applied by means of a pencil, and is to be renewed as often as required, so as to protect the parts from the air, until the cure, which is speedy, is completed :—Collodion 30, Venice turpentine 12, castor oil 6, mix.

Bull. de Therap. p. 50. p.230.

Aneurisms in England and France.—M. Chassaignac observed that while, in England aneurism was so common a disease that every Hospital Surgeon has the opportunity of seeing a certain number of cases every year, the French Surgeons only meet with the affection at pretty distant intervals; so that Roux, who of all French Surgeons had seen most of these cases, was able, during his forty years' practice, of which he published an account, to collect only a very limited number.

Topical Use of Calomel in Fistula in Ano.—Dr. J. M. Williams, of Somerville, Tennessee, reports (New Orleans Medical and Surgical Journal, November 1855,) a case of complete fistula in ano, which resisted injections of tinctures of iodine, solutions of nitrate of silver, sulphate of copper, of zinc, etc.,

and which was cured by the introduction of calomel into the sinus. The calomel was inserted into a small tube which was afterwards carried to the bottom of the fistula, and there the calomel was pressed out by means of a piston. In this way he filled the fistula full daily. In a short time a cure was effected.—*Monthly Stethoscope and Medical Reporter.*

PROVINCIAL CORRESPONDENCE.

IRELAND.

[From our Dublin Correspondent.]

Dublin, October 28, 1856.

The first of our "introductories" was yesterday delivered in the Theatre of the Royal College of Surgeons by Dr. Jacob, who has so long and so honourably filled the chair of Anatomy and Physiology in that Institution. At a few minutes after one o'clock the Vice-President, Dr. Hans Irvine, wearing the robe and cap of office, entered the Theatre, having the silver mace borne before him, and attended by Sir Philip Crampton, Bart., the majority of the Council, and a large body of the Fellows and Licentiates of the College. A numerous assemblage of students occupied the room. The learned Professor announced the subject of his lecture as "Medical Reform;" reform, however, not of Colleges and Halls, not of Schools and Universities, but reform among the students themselves. Having pointed out the vast importance of a sound preliminary education as an introduction to the successful prosecution of Medical studies, Dr. Jacob showed that the great difficulty the College had in enforcing it originated with the pupils, who, if a high standard of preliminary examination were insisted on, would desert the school. Thus, competition had obliged the College to reduce their classical course from what it once had been, equivalent to that read for entrance into Trinity College. The education at the College of Surgeons was formerly exclusively Professional, but sometime ago it had, at the suggestion of the Director-General of the Army Medical Department, assumed a mixed aspect, by the establishment of a Professorship of Logic; and such was the interest imparted to his subject by the Professor, Dr. Murray (not a Medical man), that the course of Logic had become a very favourite one with the pupils. The lecturer next enlarged on the importance of good handwriting, and read a letter from Lord Palmerston's Secretary, calling the attention of the Council of Education to this subject. The next point of Medical Reform he would bring before the students was, that they should honestly devote four years to the study of their Profession, and not by various artifices, some of which he enumerated, vastly curtail the prescribed period. The necessity of diligent attendance at Hospital was next insisted on, and the Professor recommended the French system of inscription as one by which this could be tested, while, by its adoption, the Surgeon and pupil would become more intimately acquainted. In dwelling on the subject of reform in the dissecting room, the Professor pointed out the necessity of learning the manipulation of the knife, as well as of practising several operations, such as catheterism, in which cutting is not employed. He next showed that there is not the great difficulty that many suppose in passing the final examination, and that any student who really works must be successful when submitted to this test. Grinding is now so established a system that it cannot be done away with, but it should not be abused; it ought not to be restricted to the subjects usually touched on in the examination-room, but should embrace all that is taught in the lecture theatre; neither should it be carried on during the hours appointed for hospital attendance. The lecturer, in conclusion, alluded to the system of competitive examination, which, though some doubt that it is calculated to secure the largest number of good men, will probably be extended to the appointments in the army and navy.

It has been finally arranged that Dr. Montgomery shall commence the course of lectures upon Midwifery in the School of Physic on Tuesday, the 4th of November, at four o'clock, and continue them until the election of his successor on the 15th. I believe he intends to devote the few lectures of which the time admits to the consideration of the structure and development of the ovum in the human race, and in other classes of the mammalia, a subject which has always formed a portion of his course peculiarly interesting to the students.

With the exception of the course just commenced by Dr. Jacob, the lectures in Dublin will not begin before Monday next. I hope to send you next week a very brief sketch of two or three of the opening addresses.

GENERAL CORRESPONDENCE.

A NEW FORM OF RETRACTOR.

[To the Editor of the Medical Times and Gazette.]

Sir,—As you have so kindly offered to insert a woodcut of the instrument I showed to the "Describer of a New Form of Retractor," I now forward it to you, also the original instrument for your inspection, and beg in reply to that gentleman's letter in the last number of your Journal to make a very few observations.

In describing his interview with me he makes me say—"It is exactly like the one described, excepting that it has no handle." My words were "except the handle." Had it been written thus there would have been no necessity for "or words to that effect."

Then we read "his instrument." I never claimed it as mine. I merely objected to its being called new.

With respect to "Butcher's saw" I trust my medical friends will not consider my perceptive faculties so very obtuse as that letter implies; but that, while refusing to admit this peculiar form of retractor was absolutely necessary, they will give me credit for a keen perception of the necessity for the soft parts being depressed (and for the honesty of admitting it) while traversed by the smooth blunt back of a saw blade, two-tenths of an inch deep, and which, by a couple of strokes, would be buried in the bone. But, lest we should lose sight of the point at issue in this correspondence, let us have a short *résumé*.

On the 13th September appeared in your pages a woodcut and description of a retractor for use in excision of joints said to be new. Having six years previously made retractors for the Borough Hospitals for the same purpose, and the grooved portion being in shape and curve the same as represented in the woodcut, I concluded that there was nothing very new in it, and in my letter in your number for Sept. 20, made an assertion to that effect, which I still maintain.

Moreover, the description plainly pointed to the grooved portion as the more important part of the instrument. In the following extract:—"Its great advantage over copper or bone spatulæ is its ease of introduction." And again—"Having first passed the point of the instrument under the bone, its concavity looking upwards, a manœuvre from its form very easy of accomplishment, the operator would then turn it so that the concavity should look downwards, and the hooked extremity hold the soft parts on the further side out of the way of the saw," and only alludes to the hinged handle as a means of protection to the Surgeon's fingers; but in his letter in your number for October 18, the handle claims the ascendancy, and is a "most essential part of the instrument."

Had your anonymous correspondent described a new form of handle to a retractor in use for the excision of joints, you would not have been troubled with this travestie on the old play of "Much Ado about Nothing." I am, &c.

9, St. Thomas's-street, Borough. Henry Bigg.

ROYAL MEDICAL BENEVOLENT COLLEGE.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have perused with great interest the several letters which have recently appeared in the Medical Journals connected with the arrangements of the Royal Medical Benevolent College. For the information of all interested, I subjoin the following facts:—In the published balance-sheet of a similar Institution for the year ending 1855, the sum of £6651 14s. 6d. is given as the total amount of its expenditure, which includes salaries and wages of masters and servants, victualling of the entire establishment, together with the general incidental expenses of the house and school, as laundry, gas, coal, stationery, books, etc. etc. The average number of inmates (inclusive of all) during the year, was 270, of which number 230 were pupils: division of the sum £6651 14s. 6d. by 230, gives the average cost of each pupil as £28 15s. 9½d. There are eleven masters, ten of whom reside within the walls of the building, viz., head master, second master, third master, mathematical master, writing master, and five assistant-masters.

The French master resides without the walls. The subjects of study include English, French, Latin, Greek, Ancient and Modern History, Geography, Arithmetic, Mathematics, and Natural Philosophy. The annual charge for board and education in all cases includes books, stationery, washing, and medical attendance. Now, if all this can be effected in one Institution, why not in another? I am an ardent admirer of the Royal Medical Benevolent College, and a zealous advocate of its claims upon the public to the professed objects for which it was originally instituted. I trust the Council will bear in mind the burdens of those "lesser lights" who are anxious to assist, as far as they are able, the widow and orphans; who only ask in return the opportunity of affording to their own sons, at the lowest possible cost, an education such as they most willingly wish to accord to the orphan.

I am, &c. An Honorary Local
October 26, 1856. Secretary.

EXCRETION OF AMMONIA.

[To the Editor of the Medical Times and Gazette.]

Sir,—I should be glad of the opportunity to correct a remark in your last impression on the quantity of ammonia evolved by the people of this metropolis. The calculations you refer to were *not* made by me, but by my learned friend, the Rev. J. B. Reade, who detected ammonia in the excretions as a natural product, many years ago; and who has laboured hard at this subject with a zeal which will now, I hope, be fairly recognised.

Mr. Reade's calculations were made with great care; they in no way represent, however, the true quantity of ammonia evolved by the London population, but an approximation simply to what is evolved by the breath from persons in health. The quantity really given off is infinitely greater than this. In some diseases the breath throws off an undue proportion; and I have, at this time, in the Royal Infirmary for Diseases of the Chest, some dozen patients, who, when the stopper of the muriatic acid bottle is brought to their mouths, yield in expiration white fumes as abundantly as can be produced from the carbonate of ammonia bottle itself.

In healthy persons, again, the skin as well as the breath is always giving off ammonia, to say nothing of its evolution in the excretions from the bowels and kidneys. When to these facts it is added, that the inferior animals give off the volatile alkali, as a natural product, in the same way as man, the force of your argument in favour of the suggestion for planting trees in the centres and thoroughfares of great cities becomes the more striking and imperative. I am, &c.

12, Hinde-street. B. W. Richardson.

INQUEST ABUSES.

[To the Editor of the Medical Times and Gazette.]

Sir,—On Thursday evening, the 18th day of September, I was summoned in great haste to see a respectable person, who was accidentally found lying on his back in the public road, about a mile from my residence. I hastened with all speed, and found him at his own house (whither he had been conveyed), stretched on a sofa, quite dead. Upon making inquiry I found he had been complaining during the day of a pain in the stomach, for which he went to a shop and purchased some of Holloway's pills, which it was said he had been in the habit of taking, and he took altogether nine. Afterwards he smoked a cigar, and drank two glasses of brandy and water. On his road homewards he met and spoke to different persons: about from five to ten minutes after speaking to the last person, he was accidentally found by a lad, who gave the alarm, when some men came to him. The first person that came to him tried to lift him, but being a very heavy man, he could not before some others came. He told me he put his hand to his heart, and felt it distinctly pulsating, but on arrival at the house it had ceased. The Coroner, who lived at Barnstaple, a distance of twenty miles, was informed of the circumstance the following morning, and he came out the same night by the coach, which arrived between 8 and 9 o'clock. He proceeded direct to the house, had a jury summoned, examined only the lad who first saw him, the man who first came to him, and the woman who laid out the body; and directed the Jury to find a verdict of "found dead in the road, and no marks of violence." . . . [We have omitted Mr. Clarke's account of his correspondence with one of the Middlesex coroners on this subject.—Ed. *M. T. & G.*] I then wrote to Sir G. Grey, and his answer at last was that he had no control over Coroners.

You will perceive that no Medical evidence was called, though some of the Jury hinted to the Coroner that they thought it necessary, nor was any person called from the shop where the deceased purchased the pills. It was by the request of one of the Jury that the woman who laid out the body was called to state whether she saw any marks of violence on it. The verdict being an open one, leaves much suspicion. The deceased might have taken or had administered to him poison, he might have had a blow on the head, etc., for aught the jury knew. Therefore the inquest, with such a verdict, was a perfect farce, and ought to be thoroughly investigated, as I presume the object of a Coroner's Court is to ascertain the true and real cause of death, as far as possible, especially in these days of murder and suicide. I am, &c.

Lynton, October 21, 1856. James Clarke.

DETECTION OF THE SQUINTING EYE.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have noticed a somewhat spirited discussion in your columns between Mr. Holthouse and Mr. Haynes Walton respecting the diagnosis of strabismus.

No one can doubt the extreme importance of detecting the defective eye before deciding upon an operation for its treatment; and if either of these gentlemen will, as opportunity serves, examine their patient during sleep they will I believe find the difficulty at once overcome. At least I have found such a mode of examination assist me in cases where the detection of the faulty eye was to a certain extent involved in doubt. I am, &c.

Walter Jessop,
Surgeon to the Ophthalmic Dispensary.

Cheltenham, October 25, 1856.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Saturday, Oct. 25, 1856.

Dr. Chowne, President, in the Chair.

Dr. Semple exhibited a large specimen of

DATURA TATULA,

from which a powerful extract is derived. The substance stramonium, which is an important article of the Materia Medica, has fallen into comparative disuse, owing to the uncertainty of its operation. This latter circumstance is probably due to the fact that the medicinal extract is obtained from different plants. The common *Datura Stramonium* of our own country is a humble and insignificant weed, and the extract obtained from it has, perhaps, little power; but that obtained from *Datura Tatula*, which is a large tree-like

plant, growing in North America, is a substance of undoubted efficacy, and its operation may be generally relied upon.

Dr. Edward Smith then read a paper on

THE NATURE OF PHTHISIS AND PARTICULARLY OF THE PRETUBERCULAR STAGE.

After pointing out the advantages of special hospitals in the study of diseases, the object of the author was to show, 1st. That the treatment of phthisis, in order to be commonly successful must be in the pretubercular stage. 2nd. That there is a pretubercular stage, which is capable of easy demonstration, and in which treatment would commonly prevent the deposition of tubercle. And 3rd. That the nature of phthisis essentially consists in a lessened inspiratory action of the air-cells of the lung. He admitted that phthisis was induced by a multitude of causes, but he affirmed that the tendency of all those is towards exhaustion, and that they, although many, have one common mode of action in inducing the disease. He criticised minutely the prevalent opinion that phthisis is a disease of blood, and proved that whatever may be the state of the blood in the disease, there is no universal condition of it which attends the origin of the disease, or which is really causative of it. The state of the system, which is one of the causes of phthisis is one of both solids and fluids, and is to be expressed rather by a general predisposition to the disease than by a specific state of a part of the system, viz., the blood, in which the elements of, the disease had never been found, nor had been directly transmitted to another system. He also proved, from his own investigations, that the functions of alimentation were not at fault as causative of phthisis, by showing that the quantity of food taken in the early stage is equal to that in health; and by a reference to the fæces, solids in the urine, biliary and cuticular excretions, he showed that there was no larger excretory waste than occurs in health. The lessened action of the air-cells he proved from the lessened vital capacity, feeble inspiratory power, and lessened mobility in the earliest stage of the disease; the consequent lessened vesicular murmur, harshness of respiration, and flattening of the chest, with slight dulness, indicative of atrophy of the lung. He also proved that the signs of lessened vesicular action are found in all those cases which, by common consent, are said to be prone to phthisis, and mentioned instances in his own practice at the Hospital in which the vital capacity was reduced to two-thirds or one-half of the normal quantity, without there being any evidence of the deposit of solid material in the lung. This stage of lessened vesicular inspiratory action without any evidence of tubercular deposition, he designated as the first stage of the disease, and is one in which every hope of success may be entertained from suitable treatment. The second stage was that of tubercular deposition, and the third that of destruction of tissue, whether to the extent of softening only, or to the further degree of the formation of a cavity. He then proceeded to show the connexion between the act of inspiration, and the circulation through the lungs, and the importance of maintaining a balance between the systemic and pulmonic circulations and explained the especial liability of the apex of the lung tubercles, by a consideration of the mode of action of the lung, whereby the cells of the apex must at all times be less perfectly distended than those at the base, and consequently have less circulation and vital influences. He discarded the notion of the deposition of tubercle in the lung from the blood; and, having referred to Dr. W. Addison's theory of the formation of the tubercle in the lung from degenerated epithelium, showed how readily the air-cell is rendered fit to be a receptacle of such morbid products, when its action and vital influences are lessened or lost. The extreme liability of the lungs to the deposition was not from any question of the blood, but from a consideration of the peculiar action of extension and retraction of the air-cells (as he had demonstrated) and from the immense number of such fitted receptacles as the air-cells of the lungs offered. He believed that phthisis and scrofula are distinct diseases, and that while they may be sometimes causative of each other, their co-ordinate occurrence was chiefly accidental. He also explained the occurrence of hæmoptysis before the deposition of tubercle, upon the principles now laid down, and pointed out the impropriety of any attempts to arrest it directly, and also of interfering with that degree of increased frequency of respiration and pulsation which nature sets up as a prophylactic measure when the amount of circulation in the lungs is so greatly lessened, as it is in all stages of phthisis. The discussion of the proper treatment, based upon these views, was reserved for a future occasion, but he strongly urged his professional brethren to recommend to the community the importance of a frequent examination of the chest of the younger members of families, with a view to the detection of the disease in its pre-tubercular stage.

A short discussion followed the reading of the paper, in which Dr. Semple, Dr. Snow, and Dr. Andrew Clarke took part; after which Dr. Smith replied and the Society adjourned.

THE PATHOLOGICAL SOCIETY.

Tuesday, October 20.

Mr. Arnott, President, in the chair.

The minutes of the last meeting of the former session having been read, the President delivered a brief, but appropriate, address, as introductory to the commencing one. He urged the desirability of increasing the number of members, in order to have both additional labourers in the field, and increased funds towards the expenses of the "Transactions." He much regretted that the volume just issued was the last which would appear under the editorship of the present Secretary, Dr. Quain, and hoped the Society would direct its attention seriously to the choice of an efficient successor to that gentleman. The Society then proceeded to its usual business.

Mr. Hutchinson exhibited a cast, preparation, and drawing from a case of

EXCISION OF THE HEAD OF THE HUMERUS ON ACCOUNT OF A LARGE FIBRO-PLASTIC GROWTH.

A woman, aged 38, had been admitted under his care into the Metropolitan Free, on account of a very large tumour, involving the head and upper part of the right humerus. The disease was of more than five years' duration, and had followed a fracture which had occurred six years ago. For nearly four years prior to her admission it had been stationary as to growth, and painless, the patient remaining in good health, and able to use her arm, the shoulder being, however, motionless. The tumour from this time had, from her description, been at least the size of an infant's head. Six months prior to her admission rapid increase in size had commenced, and the glands in the sub-axillary space had become enlarged. She now suffered extreme pain in the part. Positively refusing to submit to amputation, excision of the upper third of the humerus was performed, a mass of glands the size of a fist being at the same time removed from the axilla. The operation was performed early in May last. She did remarkably well after it, and the wound healed in about six weeks. Before it healed, however, an enlargement of a gland in the neck had become apparent; and, just as cicatrization was completed, the disease returned simultaneously in the upper part of the bone, and in the sub-axillary region. Both tumours increased very rapidly, and death from hæmorrhage from one of them occurred in the beginning of September.

The microscopic characters of the tumour in the bone removed at the operation had been those of a fibro-plastic growth, with numerous myeloid cells interspersed, the glandular one consisting solely of fibro-plastic structure. With these characters the history of the slow growth of the tumour had quite coincided. The tumours which returned after the operation, however, consisted of the mixed elements of a fibro-plastic growth and of medullary cancer, and contained no myeloid cells whatever. With regard to the operation, the recurrence of the disease first in lymphatics beyond the part, and secondly, in the axilla, proved that no additional benefit would have been obtained by amputation, had it been performed, instead of excision. At the autopsy the cut extremity of the shaft of the humerus was found united by strong fibrous tissue to the lower border of the glenoid cavity, and had the patient lived, there could be no doubt but that the arm, although about a third shortened, would have been a very useful one.

Dr. Ogier Ward next exhibited two specimens of

DISEASED OVA, EXPELLED BY ABORTION.

The first, which had been voided at about the fourth month of pregnancy, showed numerous small cysts containing fluid.

No placenta or any membranes could be discovered. The fluid of the cysts did not show cells under the microscope. The second had been expelled by a woman very liable to abortion, and had come away in the second or third month. The decidua were generally adherent, and did not appear to have extended into the uterine neck. Dr. Ward entered into detailed observations respecting the specimens. At the suggestion of the President, Mr. Sibley was appointed to make a further examination of them, and to report to the next meeting.

Mr. Henry Thompson next brought forward a preparation and drawing from a case of

NECROSIS OF THE ENTIRE SHAFT OF THE TIBIA.

The patient, a boy, aged 14, had been admitted a few days after a kick on the shin, which had produced most acute ostitis and periostitis. Profuse suppuration followed, and the powers rapidly giving way, amputation through the thigh was performed one month after the accident. Death from exhaustion followed a few days after the operation. The specimen showed beautifully the processes of separation of the periosteum and its newly forming osseous shell, from the necrosed and whitened shaft. The disease had extended to the articular extremity of the bone, and had opened into the knee-joint.

Mr. Shaw brought forward a specimen of

CANCEROUS ULCER OF THE PHARYNX.

A man, aged 44, admitted with much difficulty of breathing and of swallowing, had died rather unexpectedly a few days afterwards. A mass of enlarged glands had been felt in the neck, by which the larynx had been pushed forward. He was not materially emaciated, and his symptoms had been urgent only for a few weeks, although he had suffered more or less from irritation about the throat for six months. The specimen showed a large open ulcer (epithelial cancer) in the right side of the pharynx, extending down by the side of the trachea, and involving the right arytenoid cartilage and the adjacent part of the larynx. Behind the pharynx, and adhering closely to the front surface of the vertebræ, was a mass of diseased glands. No cancerous deposits were found in other organs. The stomach presented an excellent illustration of post-mortem digestion of its coats, the mucous membrane, from the splenic end, having been extensively removed, and in some parts the muscular coat as well.

Mr. Curling showed a preparation of

RECURRENT FIBROID TUMOUR IN THE GASTROCNEMIUS.

The early part of the case had been published in the Society's "Transactions" by Mr. Ward (see Vol. VI., page 345). A girl, aged 9, had had a tumour excised from the calf of the leg, which, under microscopic examination by Dr. Andrew Clark, had been pronounced recurrent fibroid. It was infiltrated into the muscular structure of the gastrocnemius. The part healed, and she left the Hospital. This was in March, 1855. About eighteen months after the former operation, the tumour having again developed itself, Mr. Curling proceeded to a second excision, intending to remove, if necessary, the whole belly of the gastrocnemius. During the dissection, however, the tumour was found to extend beyond the limits of that structure, and it was decided to be best to amputate the limb. This was accordingly done. The microscopic characters of the growth, on both occasions, were well marked. Mr. Curling expressed his belief that the disease was only locally recurrent, and that it would not again return.

Mr. Coulson inquired what were the microscopic characters, on which the opinion as to the recurrent nature of the tumour had been based.

Dr. Andrew Clark replied, that two features existed in it, which were indications of that class,—the first was, that the tissue, although resembling fibroid tissue to the naked eye, was not susceptible of being split up into fibres; the second, and by much the more important was, that amongst its fibres were numerous nests of nuclei, exhibiting various stages of the process of development by fission.

Mr. Fergusson exhibited the arm of a man whose

WRIST-JOINT HAD BEEN EXCISED SIX MONTHS BEFORE,

on account of extensive carious disease of the carpus and wrist. An operation had been performed, which was at the time believed to consist in the removal of all the carpal bones, and of the articulating ends of the radius and ulna. A single free incision on the ulnar side was the only one made. The case, in spite of a severe attack of erysipelas, did remarkably well afterwards; the swelling subsided, and excepting a single sinus, all healed. Death from phthisis followed six months after the operation, and gave the opportunity for examining the state of the joint. The man had previously had some motion, and there had been but very little discharge from the sinus. The specimen showed a carious spot on the end of the radius. The trapezium, part of the unciform, and the pisiform, had been left. Mr. Fergusson remarked that, in this case, no anchylosis was in progress, and expressed a doubt as to which event would be the most desirable after removal of the wrist.

Mr. Hutchinson mentioned a case of Mr. Stanley's in which anchylosis did not follow, and in which the result had been excellent, and expressed a strong opinion that it was very desirable to prevent anchylosis.

Mr. William Adams exhibited for Mr. Price a specimen of

COLLOID CANCER OF THE BREAST.

Mr. Price stated that he had removed it from a lady, aged 54, in whom it had been of three years' growth. There was a lump in the axilla which had also required removal. Dr. Andrew Clarke and Mr. Adams had examined it, and pronounced it a good specimen of colloid cancer. The microscopic inspection was not yet complete.

Mr. Leggatt showed a specimen of

SOFTENING OF THE SPINAL CORD AND CHRONIC PARAPLEGIA.

A young gentleman, aged 18, had died of pneumonia, having since the age of 5 been the subject of great loss of power in the lower extremities. In infancy he was quite healthy, and the affection had commenced insidiously with a slight limp. The legs were first affected, and, much later, the arms also. The legs became attenuated, short, and ill developed. He could not walk, but used to crawl on his knees and ankles; but previous to the commencement of the affection he had had measles, hooping-cough, and remittent fever in succession. The specimen consisted of the spinal cord, and of a portion of the muscular substance from the calves. The lower six inches of the cord were decidedly softened. The muscles were in a state of fatty degeneration. The dura-matral investment of the cord was rather more vascular than natural, but not materially.

Dr. Hare mentioned a case which had fallen under his notice, in which there was symmetrical loss of power in both arms, three of the muscles in each alone being excepted. It occurred in a man who had not been exposed to the influence of lead.

Dr. Gibbon had seen a case in which, at the commencement, great tenderness of the muscles existed, and he inquired whether such had been present in Mr. Leggatt's case.

Mr. Leggatt: No.

Mr. Hutchinson showed a drawing from the microscope, exhibiting the

PIGMENT LAYER IN A CASE OF BRONZED SKIN.

The skin had been taken from a typical case of the disease, and one in which both supra-renal capsules were wholly destroyed. Under the microscope, a layer of deep brown pigment was seen occupying the rete mucosum, and curved by the undulations of the papillæ. It was as dark as in many negroes. The pigment was partly granular and partly in the form of coloured cells. The epidermis itself and the true skin were wholly free from colour. Mr. Hutchinson adverted to the importance, in all cases of suspected bronzing of the skin, of making a microscopic examination. Many errors in diagnosis had arisen from neglect of this precaution, and several cases had been published as "bronzed skin," both in the London and the French journals, which were evidently only those of severe pityriasis versicolor. The diagnosis between those by the microscope was perfectly easy, and ought always to be made.

Mr. Buchanan showed a preparation of

ABSCESS IN THE BRAIN FROM DISEASED TEMPORAL BONE.

A man had died nine weeks after his admission into the Fever Hospital, his symptoms throughout having been those of disease in the brain. At the autopsy there was found in

the left optic thalamus a tumour the size of an orange, which proved to be an abscess, and from which escaped about six ounces of pus. There were firm adhesions at the base of the brain. A part of the temporal bone, over the semicircular canals, was exposed, its dura mater being ulcerated.

MEDICAL AND SURGICAL SOCIETY OF THE BRITISH ARMY.

A special general meeting of the Medical Officers of the Army assembled at the Medical Board, Whitehall, on Wednesday the 15th ult., for the combined purposes of re-organizing the above-named Society, which had been established in the Crimea, the reports of which have appeared regularly in this journal—and also to take into consideration the propriety of erecting a monument to the memory of the deceased Officers of the department, who had died on service in the East; and towards which design, the sum of £372 had been already subscribed by the survivors in the Crimea and at Scutari.

It was proposed by Sir John Hall, K.C.B., and seconded by Mr. Blenkins:—

That the Director-General should take the chair.

Proposed also by Sir John Hall, and seconded by Dr. Hulahan:—

1. That the Medical Society of the Army established in the Crimea, which was found so beneficial in its results, be transferred to London, under the denomination of "The Medical and Surgical Society of the British Army," and that all Officers of the Department on full and half-pay be invited to become members.

Proposed by Mr. Mouat, C.B., and seconded by Mr. M'Grigor:—

2. That a branch of this Society shall exist in every command, the principal Medical Officer for the time being ex-officio President.

Proposed by Mr. Wyatt, and seconded by Dr. Paynter:—

3. That, as certain expenses will be necessarily incurred for the maintenance of this Society, Medical officers be invited to contribute a small yearly subscription.

Proposed by Mr. Taylor, C.B., and seconded by Mr. Blenkins:—

4. That a provisional council be this day nominated for the purpose of drawing up "Rules and Regulations for the future guidance of the Society," which "Rules and Regulations" will be submitted for the consideration of a General Meeting of Medical Officers, to be held on Saturday, November 15, on which day officers of the department are invited to attend at this office at two p.m.

Proposed by Dr. Gibson, and seconded by Dr. Forrest, C.B.:—

5. That the following officers shall constitute the provisional council, five of whom shall form a quorum:—Sir John Hall, K.C.B., Inspector-General of Hospitals; Dr. Dumbreck, C.B., Deputy Inspector-General; Dr. Forrest, C.B., ditto; Dr. Hulahan, R.A., ditto; Mr. Taylor, C.B., ditto; Dr. Gibson, ditto; Mr. Mouat, C.B., ditto; Staff-Surgeon Mc Grigor; Dr. Reid, 2nd class Staff-Surgeon; Dr. Laing, ditto; Mr. Blenkins, Grenadier Guards; Mr. Wyatt, Coldstream Guards; Mr. Fitzgerald, Deputy Purveyor in Chief.

The proposition for the erection of the monument then came under the consideration of the meeting in the following resolution.

Proposed by Sir John Hall, K.C.B., and seconded by Dr. Hulahan, R.A.:—

1. That a subscription be entered into by the Medical Officers of the department, for the purpose of erecting some lasting testimonial to the memory of their deceased brethren (civil and military), who had died during the late war.

Proposed by Mr. M'Grigor, and seconded by Mr. Blenkins:

2. That the memorial shall consist of either a granite pillar, to be placed near the new Military Hospital, about to be erected at Southampton, or an allegorical monument, to be placed in a suitable position in the entrance hall of the same building.

Proposed by Mr. Taylor, C.B., and seconded by Dr. Paynter:—

3. That members of the Department, and artists in general, be invited to submit plans for the design, with the understanding that not more than £1000 will be available for the undertaking.

Proposed by Dr. Gibson, and seconded by Dr. Forrest, C.B.:—

4. That a subscription list be at once opened at the Army Medical Board in London, and also at all stations, at home and abroad; and, further, that Medical Officers of the Honourable the East India Company's service (several of whom served in the East during the late war), be invited to support the undertaking, as, also, all Medical Officers of the Department on half-pay.

Proposed by Dr. Tice, and seconded by Dr. Paynter,—

5. That a Provisional Committee be elected to suggest the steps which it will be desirable to take, with the view to carry out the object at once, and that this Committee do consist of the following Medical Officers:—Sir John Hall, K.C.B.; Dr. Dumbreck, C.B.; Dr. Forrest, C.B.; Dr. Halshon, R.A.; Mr. Taylor, C.B.; Dr. Gibson; Mr. Mouat, C.B.; Staff-Surgeon M'Grigor; Dr. Reid; Dr. Laing; Mr. Blenkins; Mr. Wyatt; Mr. Fitzgerald; Mr. Dartnell; Mr. Pillean; Mr. Bostock.

Proposed by Sir John Hall, K.C.B., and seconded by Mr. Taylor, C.B.—

6. That the proceedings of this day's meeting be communicated to the public journals.

The whole of the foregoing resolutions were carried unanimously, and a vote of thanks having been accorded to the Director-General for the handsome manner in which he had supported the views of the Medical Officers of the army, the meeting adjourned.

HEALTH OF THE COUNTRY DURING THE SUMMER QUARTER, 1856.

91,330 deaths were registered in the three months of July, August, and September; and the death-rate was 1·899 per cent. per annum, the average rate being 2·199; so that it was during the last season ·300 under the average of the preceding ten summer quarters. Out of the same population there were six instead of the average tale of seven deaths. Cholera was epidemic in 1854, and the summer death-rate, then so high (2·423), fell to 1·854 and to 1·899 in the subsequent summer quarters. 49,982 deaths occurred in the districts comprising the *chief towns*, 4138 in the districts comprising the *small towns* and the *country districts*. The annual rate of mortality in the summer was 2·282 per cent. in the *towns*, and 1·603 in the *country*; the average being 2·671 in the *towns*, and 1·814 in the *country*.

Effect of Density of Population.—The density of the population in the town districts was such in 1851 that 384 persons lived on 100 acres, while in the country districts 28 lived on the same ground; so that 14 were living in the same space in towns as was occupied by one in the country. Under our present imperfect sanatory regimen the mortality of the population increases in proportion as the population increases in density; and there must consequently be some relation between these elements. In three districts of England the annual mortality during ten years was at the rate of 15 deaths in 1000 living; in fourteen districts at the rate of 16; in forty-seven districts at the rate of 17 in 1000 living. Where the mortality rate was 15, 16, and 17 the average number of persons living on 100 acres was respectively 9, 17, and 22. Again the annual mortality in the same period in thirteen districts was at the rate of 27 deaths in 1000 living; while in eighteen districts the rates ranged from 28 to 36 in 1000 living. The number of persons on 100 acres in these districts were respectively 279 and 693. In the group of town districts, as they are classed in these quarterly returns, the average summer mortality is at the annual rate of 26·71 in 1000 living, while the average summer rate of the country and small town districts is 18·14 in 1000 living. If it is assumed that 17·48 per 1000 is due in both classes to other clauses, then ·66 of the rate in the country, and 9·23 of the rate in the large town districts, may be referred to the impurities of the air and water; but ·66 is to 9·23 as 1 to 14, or as 28 to 384; that is, as the density of population; so the excessive mortality, on this hypothesis, is in the same proportion as the density of the population, or as the density of the zymotic atmosphere by which that population is surrounded. If 17 is taken as the natural rate of mortality, then the excess of the two rates will be as 1·14 to 9·71; if 16 is made the standard, then the excesses will be as 2·14 and 10·71, nearly as 3 in the country to 14 in the towns.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the Meeting of the Court of Examiners on the 24th inst.:—

BENNETT, ROBERT, Chapel-en-le-Frith, Derby.
HARRIS, EDWARD, H.E.I.C.S.
HART, ERNEST ABRAHAM, St. Mary's Hospital.
JONES, THOMAS, Abridge, Essex.
MOORHEAD, JOHN, Dublin.
MUDD, WILLIAM, Hadleigh, Suffolk.
TAYLOR, WILLIAM CRAWFORD, Dublin.
WATSON, CHARLES JOHN, Ipswich.

APOTHECARIES' HALL.—Names of gentlemen who passed their examination in the science and practice of Medicine, and received certificates to practise, October 23rd, 1856:—

JENKINS, RICHARD GRIFFITH, Cardigan.
MOORHEAD, JOHN, Queen's University, Dublin.
PARSON, WILLIAM, Godalming.
POWNE, WILLIAM, Fowey, Cornwall.
WILLIAMS, WILLIAM, Festiniog, N. Wales.

DEATHS.

PRITCHETT.—Oct. 23, at Paynton-terrace, Limehouse, Charles Pritchett, Esq., Surgeon; in his 41st year, M.R.C.S.E., 1837; L.S.A., 1836.

BROWNING.—Oct. 26, at Woolwich, Colin Arrott Browning, M.D., Deputy Inspector of Hospitals, R.N., author of "The Convict Ship."

APPOINTMENTS.

MR. HUMPHRY, late Apothecary to the British Hospital at Renkioi, has been appointed Medical Superintendent of the Bucks County Lunatic Asylum.

KENT AND CANTERBURY HOSPITAL. — Wm. Daltona Haffenden, House-Surgeon to the Birmingham Lying-In Hospital, has been appointed House-Surgeon to the Kent and Canterbury Hospital.

GUY'S HOSPITAL.—At a Court of Committees of this Hospital, held on the 14th inst., the Right Hon. and Right Rev. Lord Auckland, Bishop of Bath and Wells; the Right Hon. Sidney Herbert, M.P.; Western Wood, Esq.; and Augustin Robinson, Esq., were elected Governors of the Hospital in the room of three Governors deceased and one retired.

KENT COUNTY OPHTHALMIC HOSPITAL, MAIDSTONE.—An attempt is now being made to increase the accommodation at this Hospital, by providing twelve additional beds. As this proposal, if carried into execution, will involve the immediate expense of about £400, and £100 a-year for the future maintenance of the patients, an urgent appeal is now made to the public to subscribe the necessary funds for the undertaking.

DR. DE JONGH.—His Majesty the King of the Belgians has been graciously pleased to confer the dignity of a Knight of the Order of Leopold upon this gentleman, whose name is so favourably associated with his useful researches into the nature and properties of Cod-Liver Oil. It may be recollected that the same Sovereign, and also his Majesty the King of the Netherlands, some time since, awarded to Dr. De Jongh medals of Merit, in approval of the services rendered by his scientific and practical investigations.

NEW CLASS STETHOSCOPE.—Dr. Richardson has introduced into the class-room a convenient modification of the stethoscope, made by cutting an ordinary stethoscope into two parts, and affixing these neatly to the ends of a half-inch gutta percha tube, ten feet long: so as, in fact, to make a flexible stethoscope of this length. The ear-piece has a short projecting tube to enter the ear. In using this class-room stethoscope, he places the mouth of it over the parts of the chest which are to be examined, and then gives the ear-piece to the Students on the benches, who pass it from one to the other, and are thus enabled to hear the sounds to which their attentions are directed, without confusion or movement from their seats. Attending a lecture of Dr. Richardson's at the Grosvenor-place School, a few days since, in which he exhibited a child suffering from cyanosis, we saw the stethoscope applied, and detected, through it, both the cardiac and respiratory sounds, with, as far as we could judge, the same facility as with the short stethoscope. The long stethoscope may be made of great use in clinical teaching. In a demonstration it saves time, centralizes the attention of many on one fact at one time, and relieves the patient of the annoyance of different persons coming one after the other, to make new examinations. A shorter stethoscope, for the bed-side, might be used with advantage in hospitals, where direct clinical lessons are given. The adaptation of a double ear-piece would possibly be an improvement to the instrument.

THE LATE JOHN DALRYMPLE.—Mr. Martin, of Reigate, has just published a short biographical notice of this eminent ophthalmologist, and in an appendix he notices the presentation of a copy of his "Pathology of the Human Eye" to the Royal London Ophthalmic Hospital by Mr. Churchill, concluding by a copy of the following letter:—"9th October, 1856.—Sir,—I am requested by the Committee to acknowledge, very gratefully, your most acceptable present, by Mr. Martin, of a copy of the great work on the Eye, by the late respected Surgeon to this Institution, Mr. John Dalrymple. This volume will be handed down as an heir-loom of the Hospital, acting as a memorial of the dead, in the ministrations of the living, to the relief of the afflicted, whether rich or poor. The Committee contemplate the addition to the Hospital of a Museum, in which this scientific and elegant work will be appropriately deposited with the Bust of our late lamented friend. I am, Sir, your faithful and obedient Servant, (Signed) RICHD. HEATHFIELD, Chairman.—In reply to an inquiry, Mr. Churchill states that the greater number of copies of this great work have gone to foreign countries, and that but few remain."

THE EARL OF BURLINGTON has resigned the Chancellorship of the University of London.

A DEPUTATION FROM THE BRITISH ASSOCIATION for the Advancement of Science, consisting of Sir Roderick Murchison, General Sabine, Admiral Beechey, Sir H. Rawlinson, Mr. Bell, Professor Owen, Dr. R. G. Latham, Dr. J. E. Gray, Mr. Macgregor Laird, and Dr. N. Shaw, had an interview with the Earl of Clarendon yesterday, to urge her Majesty's Government to resume the communication with the interior of Africa, by the Niger and its tributaries, as opened out by the late successful expedition under Dr. Baikie, thus continuing a system of regular intercourse with the natives.

DR. KANE, the distinguished American Arctic navigator, had an interview on Monday with the Lords of the Admiralty; also with Captain Washington, the head of the hydrographical department, by whom he was most cordially received. We regret to learn that Dr. Kane is in very indifferent health, consequent on his great exertions and exposure during his expeditions in search of the late Sir John Franklin and party.

PORTRAIT OF MR. TRAVERS.—Mr. Stone's Medical portrait gallery has been enriched by a very excellent likeness of this distinguished Surgeon.

DR. MACKENZIE is appointed to the head of the Medical Department in the Persian Gulf Expedition.

SYRIA.—Beyrout, October 13.—The *Daily News* correspondent says: "It was whispered on Saturday, rumoured on Sunday, and talked openly of to-day, that "the plague is at Damascus." The report was that the annual caravan of pilgrims returning from Mecca had brought the plague with them, and that while their camp was yet fourteen days' distance from Damascus several hundred individuals were dying every twenty-four hours. The panic in Beyrout was great, until some letters describing the symptoms of the epidemic reached town this morning, which show that it is a very severe form of dysentery, and not the plague—nor anything like it—that is killing so many persons among the hordes of pilgrims who are returning from Mecca. Letters describe the sickness as one of violent purging, which ends by passing blood, weakening the sufferer, and killing him in four or five days. The caravan first caught the malady at some very brackish springs in the desert, where, contrary to custom, they encamped for several days; and a total want of nourishing food, of doctors, or medicine, united with great fatigue and the usual apathy of Mussulmans, has caused it to spread like wildfire. But, thank Heaven! our old enemy the plague has not again appeared among us."

Underground Water Tanks.—Dr. Barnes, in his second quarterly report on the Sanitary Condition of Shoreditch, says :—"I have become acquainted with several densely-inhabited localities, the insalubrity of which is increased by the objectionable mode in which the water is stored. Underground tanks or reservoirs are constructed to receive the water daily turned on from the main of one of the Water Companies. The common situation of these tanks is the middle of a square or court. It is impossible that they can be so secured as to keep out all penetration of dirty-water and oozings from the pest-stratum in which they are built. Being underground, their condition is not subject to constant inspection, as every receptacle for pure water ought to be. No householder is, or ought to be, satisfied unless he can examine and clean out his own water-butt several times in the year. But it is fortunate if these subterranean tanks, being out of sight, exposed though they be to the most dangerous description of contamination—that of sewage water—get cleaned once in five or ten years. I have submitted samples taken from three of these tanks to examination. They abounded in mechanical impurities, exhibiting, under the microscope, quantities of organic *débris*, such as shreds of cotton, hair, wool, and vegetable cellular tissue ; after two or three days' exposure to light, multitudes of fungi and animalculæ became developed ; they contained nitrates and ammonia, and unconverted organic matter ; and the quantity of inorganic impurity was largely increased. The character of some of these impurities clearly points out the source whence they are derived, viz., from foul washings and sewage. The origin of these underground tanks is no doubt the want of space above ground. In these confined localities every square inch of space is economised in order to squeeze in a number of tenements. The remedy is simple, obvious, and effective. Fill up the tanks, and substitute taps furnished on the system of constant snpply."

Poisoned Pastry.—A man employed in removing the fragments of the Irish Crimean banquet last week, took some ornamental confectionery home, sweet to the taste, white, blue, and green in colour. Eighteen grown persons and children partook of the delicacy, and all suffered more or less. One child 4 years old, died. The appearance of the gastro-intestinal mucous membrane was that commonly observed after the operation of irritant poisons. It is pretty clear that Scheele's green was used as the colouring matter, and the jury, while exonerating the manufacturers on the ground that the articles were intended as ornaments and not for use, very properly cautioned all pastry-cooks and confectioners against using such dangerous colouring matter for the future.

Earthquake in Egypt.—A shock of earthquake was felt throughout Egypt on the 12th instant. At Cairo 200 houses were thrown down, and the remainder were nearly all damaged. The population had encamped outside the city. The shock was felt at Smyrna and in many of the islands of the Levant.

Poisonous Goats' Milk.—On the 13th ult. about 20 persons residing in Strada St. Ursula and Strada Stretta, Malta, were seized with violent vomiting, and other symptoms of cholera. It was, however, soon ascertained by the police physician, Dr. Felice Calleja, that their illness was caused by drinking the milk of two goats which had been fed on some wild herbs, commonly known in this island by the names of oxalis or haxixa ta l'Inglisi, latiris, or tenghud, or gemmugha, our wood-sorrel. However, none of these cases proved fatal.

A Polytechnic School is about to be established at the expense of the Austrian Government, at Ofen in Hungary.

The Alleged Gas Nuisance.—The Committee on this question have reported to the Commissioners of Sewers that they have no jurisdiction in the case, and recommending, under the advice of the City Solicitor and the solicitor of the Commission, "in a question depending on conflicting testimony, and where the public health on one side, and the fate of a large amount of invested capital on the other, are dependent," that the whole question should be remitted to the Queen's judges and a jury (we suppose in the shape of an indictment for nuisance). A rather curious proceeding,—to assume the functions of a Court of Inquiry, and take all the evidence, and then discover that they have no jurisdiction, and cannot deal with the matter before them.

Cholera in India.—The number of deaths by cholera in the Punjaub is reported as having been enormous, but no figures are given.

Cholera at Malta.—On the 24th ult., nine cases of cholera manifested themselves among the 31st Regiment at Gozo, two of which proved fatal. It is supposed to be owing to their exposure, and to the change from the extreme heat to the cool weather with rain we have lately had. No alarm is felt about its spreading, the island was never otherwise healthier, and the weather is beautiful. Immediately it became known that cases of cholera existed in the 31st Regiment their camp was moved.

The Cholera is prevailing at Saloniea.

Death from a Leech Bite.—A child died last week, in Somers'-Town, from excessive hæmorrhage resulting from a leech bite. Several leeches had been applied, to relieve bronchitis, and one of the wounds bled so profusely that death soon resulted.

Statistics of Lithotrity.—Dr. Swalin, of Stockholm, has published a pamphlet giving the results of 61 cases of calculus, observed by him between 1840 and 1855. Of these, 8 were not operated on ; 4 were submitted to lithotomy, and 49 to lithotrity. The ages of the latter were 1 between 10 and 20 ; 4 between 40 and 50 ; 14 between 50 and 60 ; 26 between 60 and 70, and 4 between 70 and 80. Seven deaths occurred, giving a mortality of exactly 1 in 7.

Infantile Mortality.—The Register of deaths thus summarily disposes of a family in Bury :—"Mary Simms, has had 12 children, of whom 2 only are now living. 2 were still-born, 5 died under 3 months old, 2 died about 2 years of age, 1 died at 6 years. None of her children have been vaccinated. 4 have had small-pox ; 2 suffered from it about 6 years ago ; one aged 5 years recovered ; one aged 2 years died. This day, August 24, another of her children, aged 6 years, died of small-pox, and another, 10 months old, lies dangerously ill of the same disease."

Hospital Ventilation.—Many gases injurious to health are diffused with extreme rapidity ; place and expose camphor in a room, then open doors and windows,—the diffusion will not be stopped, nor the scent be materially diminished ; if even the air could be pumped out with a strong current, the taint would remain as long as any of the camphor existed. Decaying and fermenting animal and vegetable substances act much in the same way as camphor ; gases are liberated and diffusion takes place. The change of air in rooms and hospital wards ought not to be made at high velocities ; some of the best regulated hospitals calculate upon a change equal to one foot vertical per minute ; that is, in a room 15 feet high, the whole air should not be changed at a greater rate than once in fifteen minutes. Gases are diffused much more rapidly than this ; for a limited space one gas will pass into another gas (hydrogen into common air, for instance) as into a vacuum. No allowable artificial current man can create will prevent such diffusion, if the gases are brought into proximity ; no ordinary artificial trapping will stop it. Many gases pass through fluids, and so-called solids, very readily. Hydrogen gas will pass easily through the pores of stucco, so that plastered walls and ceilings are no barrier to the diffusion of cesspool emanations ; hence the intolerable and incurable nuisance experienced where such receptacles are used. Latrines and cesspools generate hydrogen and its compounds ; they cannot, therefore, be placed in contact with hospital wards or rooms without creating and maintaining a nuisance, and doing serious injury to the patients or inhabitants.—*The Builder.*

Health of Butchers.—Dr. Thomson in his last monthly report on the health of Marylebone, says :—"The number of butchers in England and Wales in 1851 was 49,403. The deaths out of this extensive class amounted, between the ages of 35 and 45 to 17 per thousand, while only 8 per thousand of farmers died, and 10 per thousand of shoemakers ; 21 per thousand of publicans however died. Between 45 and 55, the mortality was among butchers 23, farmers 12, shoemakers 15, publicans 28 in the thousand. Between the ages of 55 and 65 the deaths were, of butchers 42, and of publicans 39 per thousand ; of farmers 25, and of shoemakers 29 per thousand. A variety of circumstances no doubt contributes to the unhealthy condition of this class. They are exposed to cold and wet in the night, often to incessant labour, toiling very frequently in close ill-ventilated holes underground, as some slaughterhouses may be termed with justice.

I am told that the younger butchers generally eat a very large quantity of animal food, and that from one to two pounds, and even upwards, is no uncommon daily allowance; that those who thus eat freely are not so much addicted to stimulating drinks; and some master butchers are of opinion that the two practices are incompatible for any prolonged period of time.

Quarterly Report of the Registrar-General.—In the thirteen weeks that ended 27th September, 14,066 persons died in London, which is about a thousand more than in the same quarter of 1855. Diseases of the zymotic character were fatal in 4093 cases, against 3661 in the summer quarter of last year: of these 101 were due to croup, 108 to small-pox, 382 to hooping-cough, 393 to measles, 433 to scarlatina, 573 to typhus and common fever, 1610 to diarrhœa (against 1258 from this complaint in the same period of last year), 131 to cholera, chiefly cholera infantum; the rest to various other diseases of this class. Very young children were the sufferers from diarrhœa in a very large proportion of the cases. The deaths from measles were most numerous in the South districts, those from scarlatina and typhus in the East. Diarrhœa appears to have prevailed with considerable uniformity over the great divisions of the metropolis, though, if the sub-districts be compared with each other, both with reference to population and deaths, results, in many instances widely different, will be obtained. Phthisis (or consumption) carried off 1794 persons, the number in the corresponding quarter of 1855 having been 1645; bronchitis 562, pneumonia 581, being an increase on the previous year from both diseases. Eighty-six women died from diseases of the puerperal state. Eighteen persons died of carbuncle, the numbers in the summer quarters of the last five years ranging only from 15 to 19. Ten persons died from the intemperate use of liquor, besides those who sustained fatal injuries when intoxicated, and those who died from maladies generated by intemperance, which, however, is not shown in the Medical certificate; 35 from delirium tremens; 6 unfortunate persons from want; 145 children from want of breastmilk. Poison destroyed 22 lives, the number in five quarters of 1852-56 ranging from 13 to 23. Drowning is recorded in 138 cases, which is considerably more than the average.

The following were the number of deaths in 117 Public Institutions, registered in the 13 weeks ending Saturday, 27th September. In

	Males.	Females.	Total.
46 Workhouses	545	637	1182
14 Prisons	8	5	13
4 Military and Naval Asylums	78	—	78
13 General Hospitals	444	251	695
7 Hospitals for Special Diseases	65	52	117
4 Lying-in Hospitals . Women	—	—	—
4 Lying-in Hospitals . Children	6	3	9
7 Military and Naval Hospitals	57	—	57
2 Hospitals and Asylums for Foreigners	11	2	13
20 Lunatic Asylums	35	31	66
Total	1249	981	2230

The following were the gross numbers in the General Hospitals:—St. Mary's, 38; St. George's, 68; Westminster, 26; Charing Cross, 11; Middlesex, 55; University College, 38; Royal Free Hospital, 17; King's College, 28; Hospital for Sick Children, 11; St. Bartholomew's, 131; London, 77; Guy's, 100; St. Thomas's, 95.

Mortality in Scotland.—The following is the monthly return of the births and deaths, in eight principal towns of Scotland, for the month of August. There were registered 2414 births, of which 1182 were males, and 1232 females; and 1689 deaths, of which 867 were males, and 822 females. Allowing for increase of population, this would give at the rate of one birth annually in every 29 and one death in every 42. Of the 1689 deaths, 924, or 54 per cent., were under five years of age. The proportion of deaths under five years of age in the different towns, was in Perth, 32 per cent.; in Aberdeen, 34; in Edinburgh, 48; in Dundee, 50; in Greenock, 53; in Paisley, 55; in Leith, 56; while in Glasgow no fewer than 61 per cent. of the deaths were children under five years of age. The deaths from the zymotic class of diseases amounted, in the eight towns, to 585; thus constituting 34 per cent. of the total mortality. The proportion of deaths from that class of diseases, in the eight towns, was, in Perth, 14 per cent. of the deaths; in Aberdeen, 27 per cent.; in Dundee, 28; in Edinburgh and Greenock, 31; in Glasgow, 38; in Leith, 39; and in Paisley, 42. Small-pox still continues prevalent in Aberdeen and Edinburgh, and has shown a tendency to increase both in Paisley and Leith. 10 per cent. of the deaths were from that disease in Aberdeen, 7 per cent. in Paisley, and 6 per cent, in Edinburgh and in Leith. Hooping-cough is at present the most fatal of the Epidemics peculiar to childhood, having cut off 133 children in the eight towns during August. This disease is most severe in Glasgow, where it caused 110 deaths,—thus constituting 13 per cent. of the deaths there. 9 deaths from Cholera were registered in the eight towns during the month. Of these, 7 occurred in Glasgow, 1 in Dundee, and 1 in Aberdeen.

Mortality Notabilia.—The returns continue to show that London is at present in a very healthy condition. The total number of deaths registered in the week that ended on Saturday is 960, being nearly the same as in the previous week, but less on an average by 170 than it was in each week of August and September, when the mean temperature, taking one week with another, was 8° higher than it was last week. In the ten corresponding weeks of the years 1846-55 the average number of deaths was 994, and if this is raised in proportion to increase of population it becomes 1093. Hence the number of deaths last week was 133 less than would have occurred if the average rate of mortality in the third week of October had prevailed. The number of deaths last week from zymotic diseases was 192, whilst the corrected average is 306. Fatal cases of scarlatina and typhus are more frequent in the Eastern districts than in any of the other divisions.

Births.—The births of 848 boys and 868 girls, 1716 children, were registered; average, 1437.

Meteorology.—Mean height of the barometer in the week, 30·208 in. The mean daily reading was above 30 in. on every day of the week; that on Friday was 30·345 in., and that on Saturday 30·346 in. The mean temperature of the week was 51·2°, which is 2·6° above the average of the same week in thirty-eight years. The mean daily reading was above the average on every day except Saturday. The highest reading occurred on Wednesday, and was 66·2°; the lowest on Friday, and was 36·5°. The mean dew-point temperature was 48°; and the difference between this and the mean temperature of the air was 3·2°. The mean temperature of the water of the Thames was 54·3°. Wind, E.N.E. No rain on the night of Saturday. The thermometer fell to 32°, and on grass to 24°. Electricity positive, and tension weak; horizontal movement of air (five days), 185 miles.

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, October 25, 1856.*

Causes of Death.	In the Week ending Saturday, Oct. 25, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temperature	Mean temp. 51°·2						50°·0
All Causes	960	493	139	162	134	24	993·7
Specified Causes	948	490	138	162	134	24	989·0
Diseases:—							
1. Zymotic Class	192	148	17	17	10	..	277·7
2. Dropsy, Cancer, and others of uncertain seat	35	7	2	15	11	..	42·5
3. Tubercular Class	170	57	68	38	6	1	164·3
4. Of Brain, Nerves, etc.	106	50	10	24	20	2	108·3
5. Of Heart, etc.	39	3	5	8	21	2	38·5
6. Of Respiratory Organs	147	101	10	17	13	6	142·6
7. Of Digestive Organs	59	26	4	16	12	1	57·0
8. Of Kidneys, etc.	18	2	6	6	3	1	13·6
9. Of Uterus; viz. — Puerperal Disease, etc.	10	2	4	4	..	..	10·1
10. Of Joints, Bones; viz.— Rheumatism, etc.	8	3	2	1	2	..	7·0
11. Of Skin, etc.	6	2	..	2	2	..	2·4
12. Malformations	1	1	..	..	..	..	3·6
13. Debility from Premature Birth, etc.	32	32	..	..	..	..	22·8
14. Atrophy	47	36	..	2	9	..	25·4
15. Age	29	..	..	..	19	10	38·8
16. Sudden	10	2	1	2	5	..	7·5
17. Violence, Privation, etc.	39	18	9	10	1	1	27·5
Causes not specified	12	3	1	..	..	..	4·7

THE following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the several Districts of London, for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	4	..	2	2	4
North	490,396	1	2	8	3	2	16
Central ..	393,256	2	7	7	..	8	7
East.....	485,522	1	4	12	7	6	18
South	616,635	..	6	11	13	4	7
Total..	2,362,236	4	23	38	25	22	52

DEATHS IN PUBLIC INSTITUTIONS for the Weeks ending Saturday, October 25 :—

	Males.	Females.	Total.
Workhouses	31	30	61
Prisons	..	..	..
Military and Naval Asylums ..	4	..	4
General Hospitals	33	16	49
Hospitals for Special Diseases ..	4	5	9
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	9	..	9
Hospitals for Foreigners, etc. ..	1	1	2
Lunatic Asylums	4	3	7
Total	86	55	141

TO CORRESPONDENTS.

So much inconveuience has arisen from the practice of printing private copies of papers for Authors, that the Proprietors have re-established an old rule—that no private copies of papers published in this Journal can be printed from the type used for the Journal.

A Health Officer.—The provisions of the "Metropolitan Market Act" (14 and 15 Vic., cap. 61) relative to private slaughter-houses now come into operation. Under this Act it is provided that all places used as slaughter-houses after the 1st of December of the year next following that in which the public slaughter-houses attached to the Metropolitan market are provided, shall be licensed at the preceding Michaelmas Quarter Sessions. This condition was fulfilled, and official notice thereof given in the *London Gazette*, in June, 1855.

A Druggist.—Iodide of zinc is easily made. It is only necessary to take a piece of clean zinc, sprinkle iodine over it, aud place it over a glass vessel. A brown fluid runs into the vessel, which is iodide of zinc. It has been found very useful as a local applicatiou in syphilitic ulceration.

A General Practitioner.—The local application, in cases of superficial cancer, used by a celebrated American *soi-disant* cancer-curer, is a paste composed of yelk of egg and common table-salt, with a small proportion of creosote From what we have heard of its effects, it is certainly worthy of a trial.

Student.—Dr. Kucheumeister's observations are recorded in the weekly Medical journal of Vienna in 1855. His conclusions are—1st. That cysticercus cellulosæ is the scalex of the tænia solium laminis. 2nd. That the infection with tænia solium is the same as with other tænia originating from cysticercus. 3rd. That we are infected by introducing cysticerc. cellul. in raw or cold meats, etc., into our stomachs. 4th. That cysticerc. cellul. can be geuerated in the hog by feediug it upon the joints of the tænia solium. 5th. That they have not succeeded in generating the cysticerc. cellul. in dogs and sheep by feeding them with the ripe joints of the tæuia solium.

Erratum.—In Mr. Toynbee's last Lecture, p. 411, 1st column, 16th line, for *Case* 5 read *b*.

Scotus.—The receipts of the College for the year 1855-6 were £14,459 1s. 10d., and the expenditure £14,173 14s. 10d. The Museum department cost £2,451 7s. 9d. of the above disbursements.

Mr. Morgan.—The cases of sore nipple iu which collcdion is so useful are those in which a crack or fissure runs round the *base* of the nipple.

Dr. Gordon.—The proofs shall be sent as desired. Kamula received. Many thanks.

Dr. M'Craith.—The journal shall be sent regularly. We shall be happy to receive the papers.

Dr. C.—We only insert deaths of members of the Profession in this Journal, not those of members of their families.

Mr. Jones' (of Jersey) paper on Tracheotomy shall appear next week.

Dr. Sankey.—The papers would be most acceptable.

F. R. S.—Sir Everard Home delivered the Hunterian Oration iu 1814, was Master of the Royal College of Surgeons iu 1813, and President in 1821.

Mr. Bailey.—The procedure in Scotland is as follows:—Iu order that a person be received into any public hospital or asylum for the insane, a warrant must be had from the sheriff of the county or his substitute, and this must be founded upon a petition from a relative or friend of the lunatic, specifically stating that the party named therein, "is in such a state of mental derangement as to require treatment in a lunatic asylum." This document must be accompanied by a certificate of a legally-qualified Medical practitioner, declaring on "soul and conscience" that to the best of his belief the patient named is insane, and a proper person for admission. In Scotland no private individual can receive into his house any one insane patient, without a certificate signed by two Medical Practitioners, which must be transmitted to the sheriff within five days of the reception of such patient.

Mr. P.—We do not insert marriages of members of the Profession in this Journal, but we should be glad to do so if it appeared to be the general wish of our readers.

Mr. Burgess.—The late Dr. Porter, of Bristol, *was* brother to Sir Robert Ker Porter, of the Caraccas, and also to the Misses Jane and Anna Maria Porter, the authoresses.

Errata in Life of Cheselden.—Page 421, column 1, line 1, read for *three* centuries past. Page 422, column 1, line 16, read *two-thirds* of a page. Page 422, column 2, line 15 (last word in paragraph), for *corruption* read *digestion*. Ibid, line 7 from bottom, for 1804 read 1727. Our readers are requested to make at once the above corrections in their copies of Cheselden's life. The last correction is very important.

COMMUNICATIONS have been received from—

Dr. MCCARTHY; Mr. BOILEAU; Mr. ESTE; Mr. EDWARDS; Dr. GORDON; Mr. MACKENZIE; Dr. FAIRLESS; Mr. SMITH; Mr. ADAMS; Mr. ARCHBALD; Mr. HOLMES COOTE; Mr. BRITTON; Dr. BARNES; Mr. LEY; Mr. JESSOP; Mr. MARTIN; Mr. LINCOLN; Dr. E. SMITH; Mr. WILSON, Paisley; Mr. R. TURNER; Mr. J. FOX; Mr. CLARKE; Mr. BROCK; Dr. M'CRAITH; Mr. WILKINSON; Dr. RICHARDSON; Mr. WOOLCOTT; Mr. G. W. SMITH; Mr. H. SMITH; Mr. HEY, York; Dr. R. COULSON; Messrs. ANSAR, HARFORD, and Co.; Mr. TEALE, Leeds; Dr. M'WILLIAM; Mr. TUCKER; Mr. ELKINGTON, Birmingham; Mr. ERASMUS WILSON; Mr. PART; Mr. PORTER; Mr. WILDE; Mr. HAFFENDEN; Dr. MACLEOD; F.R.S.; Mr. BAILEY; SCOTUS; Mr. H. RYMER; Mr. H. J. WALKER.

APPOINTMENTS FOR THE WEEK.

NOVEMBER 1. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m.: General Meeting. The assent of two-thirds of the Fellows present is required in order that the propositions advertised last week may become law.

3. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m.: Dr. Milroy "On the Study of some Epidemic Diseases."

4. *Tuesday.*

Operations at Guy's, 1 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m.

5. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

HUNTERIAN SOCIETY, 8 p.m. An open Meeting.

6. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

HARVEIAN SOCIETY, 8 p.m.: Dr. Ramsbotham will deliver the Introductory Address.

7. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

WESTERN MEDICAL AND SURGICAL SOCIETY, 8 p.m.: Mr. Ellis, "Notes on a Patulous State of Os Uteri and its relation to Abortion."

8. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m.

ORIGINAL LECTURES.

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT OF THE DISEASES OF THE EAR.

DELIVERED AT
St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.,
Aural Surgeon to the Hospital, and Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

Lecture VII.

(Reported by JAMES HINTON, Esq.)

EXTERNAL MEATUS—POLYPI.

Polypoid growths are not unfrequently met with, and, as already stated, they are generally the result of long-continued irritation of the dermoid layer of the meatus. They are, however, sometimes the result of chronic inflammation of the mucous membrane of the tympanum, or of obstruction of the Eustachian tube. As a general rule, polypi are attached to the surfaee of the dermoid layer of the meatus, although I have occasionally met with eases in which they spring from the outer surface of the membrana tympani, and in one dissection, I found a polypus growing from the inner surface of the latter. The existenee of a polypus is always attended with a discharge of matter; this usually arises from two sources; viz, the dermoid layer of the meatus, and the surface of the polypus itself. In some eases of polypus there is a discharge of blood. The diseharge has usually a very offensive odour. A polypus when small is not generally attended with much uneasiness, and its presence is not commonly detected unless a careful inspection be made. In eases where it becomes large, a sensation of fulness in the ear is experienced, and not unfrequently there is a sense of heaviness in the head accompanied by giddiness, and a feeling of eonfusion in the head; these latter symptoms are much increased when a polypus, which projects beyond the orifice of the meatus, is pressed upon. In several instances I have known this pressure productive of complete insensibility; sometimes there is also a shooting pain which extends from the ear to the temple. These symptoms of cerebral irritation, which frequently cause great alarm to the patient and his friends, appear to be produced by the pressure of the polypus upon the outer surface of the membrana tympani and chain of ossicles. This pressure causes a movement inwards towards the eavity of the vestibule of the inner extremity of the chain of ossicles, for upon careful examination of this specimen, which I have prepared for the purpose, it is manifest, that, although there are two articulations between the long process of the malleus and the base of the stapes, yet the slightest movement inwards of the processus longus mallei causes the base of the stapes to be pressed inwards towards the cavity of the vestibule; and, as I have previously stated, pressure upon the contents of the vestibule appears to be productive of results very similar to those of pressure upon the brain. From my own experience, it would appear that pressure upon the contents of the vestibule may produce, 1st,—a sensation of noises; 2nd,—confusion of ideas; 3rd,—giddiness and insensibility.

In all cases of discharge occurring from the external meatus, the first step is to use a syringe so as thoroughly to cleanse the meatus. When this has been done, there is no difficulty in determining whether a polypus be present, although it may be situated close to the membrana tympani. Polypi occurring in the external meatus may be divided into three classes.

1. The one of most frequent occurrence, which may be called the raspberry polypus.
2. That which has been termed the gelatinous polypus.
3. The globular polypus.

I shall speak of each of these classes separately.

1. The cellular raspberry polypus.

I have given this name to the polypus most frequently met with, and which consists of numbers of round beads, somewhat similar in appearance to the free surface of the raspberry. These beads are attached by means of small filaments to a central stem, which forms the root. It is frequently covered by ciliated epithelium, and when examined microscopieally its interior is found to be eomposed of small, rounded cells. It is usually so soft that upon being taken hold of by the ordinary dressing forceps, it breaks up and bleeds freely. The raspberry polypus varies much in size; sometimes it is not larger than a grain or two of mustard seed, at others it fills the whole of the meatus and projects from the orifice. The parts of the meatus to which this kind of polypus is attached are very various; as a general rule they are attached to the inner half of the tube, and frequently close to the membrana tympani. When small, their colour is usually a deep red; but when they increase in size they become more pale, and the rounded masses considerably increase in size. The formation of these polypi is often attended with considerable pain and by a discharge of blood. It is not uncommon for this polypus to remain undisturbed during several years, the whole of which time it throws off a most offensive secretion without producing symptoms sufficiently urgent to induce the patient to apply for relief; in other eases the head symptoms are so distressing as to cause serious alarm. These polypi are usually the result of irritation in the tympanic eavity, and they are frequently symptomatic of obstruction of the Eustachian tube.

Treatment.—The treatment usually adopted consists either in applying astringent lotions and drops, or in endeavouring to remove the mass by means of an instrument. With regard to astringent applications, there can be no doubt that they exercise no beneficial effect either in preventing the growth of the polypus, in diminishing its vascularity, or the quantity of the secretion which it throws off. The same remark applies to the use of the nitrate of silver; under the influence of a strong solution of this substance, or of the solid nitrate of silver itself, I have seen the cellular polypus not only retain its vascularity, but rapidly increase in size. The two plans I have adopted for the removal of these polypi are the application of the potassa cum calce and the use of the lever-ring forceps. I will speak of these two plans separately.

1st. *Of the use of the potassa cum calce.*—In the early part of the year 1852 I published a series of papers (a), in which I advocated the use of the potassa eum ealce. Since that period I have suggested the use of the lever-ring forceps, the operation of which is so satisfaetory that I now but rarely use the potassa eum ealce. Inasmuch, however, as the majority of Medical men are not likely to possess that instrument; and, as the use of the potassa cum calee appears to be the next best plan for the removal of these polypi, I will give the result of my experience with it. In the first place, it is important that the substance used should be made into very thin sticks. Those supplied to me by Mr. Squire, in the form recommended by Dr. H. Bennett, answer the purpose extremely well, so long as they retain their size and form; but, as this substance deliquesces very rapidly, it is important that the greatest care be taken to keep it excluded from the air. For use at this Hospital the potassa cum calce has been manufactured by Bailey, of Wolverhampton, and this was re-cast into smaller sticks by Hopkins and Williams, of New Cavendish Street. This material contains a small quantity of iron, which makes it firmer and much less deliquescent than when made in the usual way. The latter preparation, as not re-

(a) Medical Times and Gazette.

quiring so much care in its application, is, perhaps, to be preferred for those who are not often called upon to make the application, although that which does not contain iron is certainly the most efficacious.

In the application of the potassa cum calce the first step is to syringe out the meatus with tepid water, and then to dry it with cotton wool. The patient should then be placed before a strong light, so that the Surgeon has a distinct view of the polypus. He may then take a stick of the caustic in the right hand while he holds the ear back with the left; and great care must be taken not to touch the surface of the meatus, which is so extremely sensitive that the pain produced by the action of an escharotic upon it is very acute. For the purpose of protecting the meatus an oval glass tube may be used; it is to be passed down the meatus as far as the polypus, and by gentle pressure a portion of the polypus may be made to enter the distal end of the tube. The polypus, unlike the meatus, possesses but little sensibility, and the potassa is to be pressed gently against it, the immediate effect of which is to decompose the whole of the substance to which it extends. If a pair of rectangular forceps be employed, neither the hand of the Surgeon nor the instrument he employs prevents the operator seeing the polypus while he is making the application, and he can be sure that he touches the whole of the free surface. If this operation be carefully effected the patient scarcely complains of pain; but if any portion of the escharotic reaches the surface of the tube, the pain is described as being most acute. It can, however, be immediately arrested by syringing the ear with warm water, which should always be close at hand. Supposing the potassa to have been thoroughly applied, the colour of the polypus at once changes from a bright red to a livid hue. After the operation the patient should sit still for three or four minutes, and if the glass tube has been employed it should be allowed to remain fixed, as during the operation. Upon inspecting the polypus after three or four minutes it will be found to be broken up, to have blood oozing from it; and, instead of its former rounded head, it presents an uneven pulpy mass. The meatus is now to be syringed out with tepid water, when blood, mixed with the *débris* of the polypus in a filamentous form, comes away; the surface of the polypus still remains of a dark colour, and during several hours a process of slow dissolution takes place in all that part which the escharotic has reached. If the cotton wool has rendered the polypus quite dry, it is desirable to moisten the potassa very slightly. As a general rule, the potassa may be again applied the following day; the process already described is to be gone through until the whole of the mass is destroyed.

Case 1.—*Vascular Polypi near the Membrana Tympani—Singing in the Ear; Power of Hearing diminished; Treated with Potassa cum calce; Cure*.—Mr. W. L., aged 40, was sent to me on the 21st of July, 1850, by Mr. Cock, of Guy's Hospital. He was a large, strong man, and in good health. He states, that five or six years ago he found that he was dull of hearing in the left ear; this dulness was removed by the use of the syringe, which brought away a considerable quantity of cerumen. He remained without cause of complaint until three months ago, when the same symptom returned in the left ear. He was again in some measure relieved by syringing, but this operation was followed by a discharge of a very offensive character, attended by a sensation of singing in the ear. He has at times complained of slight pain in the ear. Upon examination the meatus was found to be full of matter, which, after being removed, was seen to consist of adhesive mucus, mixed with epidermoid cells, the latter giving a milky aspect to the matter. The former presented numerous small flocculi, or rather little particles of cotton-thread, from a line and half to three lines in length. Upon examination of the meatus after this mucous fluid was removed, a polypus of a red colour was observed. It was situated deep in the meatus, of which it apparently occupied the inner fourth, entirely obstructing a view of the membrana tympani. The power of hearing was much diminished, a watch, the normal hearing distance of which is three feet, not being heard, except when pressed upon the outer ear. From the treatment of similar cases, I felt that it would not be desirable to attempt a removal of this mass by instruments, not only on account of the soft texture of the polypus, and from its extreme sensitiveness, but also from the uncertainty to what part the roots of the polypus were attached; and I felt that, if it were fixed to the membrana tympani, the use of any force might prove injurious to that organ. Having since ascertained, by dissections,(b) that the dermoid layer of the meatus is continuous with the dermoid lamina of the membrana tympani, it appears desirable, on this account also, not to use any force to a polypus attached to the vicinity of the membrana tympani, as a laceration of the meatus is likely to extend to the membrana tympani.

July 21.—The potassa cum calce was applied to the surface of the polypus in the way previously described; in the course of a minute, the whole of that part of the polypus which could be seen became of a livid hue, and, when the ear was syringed with tepid water, five minutes afterwards, numerous small particles of the polypus, softened and disintegrated, were brought away. The patient complained of but very slight pain, and this entirely disappeared upon the use of the syringe.

July 29.—The polypus is smaller and less red; the discharge from the meatus very copious. The potassa cum calce was again applied, with similar results.

August 13.—The polypus is observed to be much smaller. Instead of the mass which, at the first examination, had an appearance like a raspberry, there was now only a rounded button, about a line and a-half in diameter. The potassa cum calce was again used.

October 18.—The discharge is much diminished; its odour is less fetid; polypus nearly gone; the power of hearing is much improved.

Nov. 13.—Since the last visit, a lotion, composed of a drachm of tannin to eight ounces of water, has been used twice daily; the discharge has now nearly disappeared, and consists almost entirely of epidermoid cells. The only vestige of the polypus consisted in the presence of two very small buttons, each of the size of a small pin's head; these were attached to the upper part of the membranous meatus, close to the membrana tympani.

Nov. 29.—The use of the injection has been continued; the polypus has entirely disappeared; the singing noise has ceased; the surface of the membrana tympani is dull. Hearing distance of the watch six inches.

The features of interest in this case appear to be: Firstly, that, although the escharotic was only applied at intervals of several weeks, the polypus did not increase in those intervals, but, on the contrary, it gradually diminished. Secondly, with the destruction of the polypus, the singing entirely disappeared. Thirdly, the return of the power of hearing to so considerable an extent.

Case 2.—*Discharge from the Left Ear during many Years; Giddiness; Polypus; Treated by Potassa cum calce; Cure*.—The Rev. H. C., aged 40, consulted me on the 21st of April, 1851. His constitution was not robust, he having spent some time in India. The history of his case is, that the left ear has been deaf from childhood, that since early life he has been troubled by a discharge of offensive matter from that ear, and that lately he has complained of attacks of giddiness, especially upon suddenly rising from his chair. Upon examination, a red polypus was observed to fill the inner half of the meatus. The same treatment was adopted in this case as in the last, with the exception that, as the patient lived in the country, he had the potassa cum calce applied two or three times in the space of nine or ten days, and then a longer interval elapsed before it was again used. The same result, however, ensued, and at the end of six months the polypus had disappeared, and the symptoms of giddiness wholly vanished.

In another case, that of a patient, aged 26, where the polypus filled the whole of the meatus, portions were removed by forceps, and the remainder destroyed by potassa cum calce. The symptom of interest in this case was the production of giddiness by pressure on the outer part of the polypus.

In cases of polypus, which co-exist with catarrhal inflammation of the dermoid meatus, it is desirable to keep up a slight counter-irritation, by vesicating paper over the mastoid process, while the polypus is being treated by the potassa cum calce. In order to remove the unpleasant odour of the discharge, an injection, composed of one part of the solution of chloride of lime to twelve parts of water, may be used three or four times daily.

2. *On the removal of the vascular polypus by the lever-ring forceps*.—Every Surgeon who has attempted to remove a polypus, especially when situated near to the membrana tympani

(b) See, by the Author, "On the Structure of the Membrana Tympani in the Human Ear." Philosophical Transactions, Part I., 1851.

must have found himself unsuccessful, if he has used the ordinary forceps. In the first place, it is almost impossible to lay hold of the growth, on account of the small size of the tube preventing him separating the blades of the instrument; and, should a large meatus enable him to do this, the instrument fills up so much of the tube, that the Surgeon cannot see whether he lays hold of the polypus or not. Should he succeed in seizing the polypus, he will find that it breaks up, and the roots are not touched.

Various instruments have been invented, having for their object the removal of the small vascular polypi from the external auditory meatus. Of these, by far the best is the snare of Mr. Wilde, which is thus described at page 420 of that gentleman's work on "Aural Surgery:"—

"It consists of a fine steel stem, five inches long, and bent in the centre, with a moveable bar sliding on the square portion, near the handle, which latter fits over the thumb. The upper extremity is perforated with holes running parallel with the stem, and loops at the angle serve the same purpose. A fine wire, fastened to the cross-bar, passes through these loops and holes; it should be of such length that, when the cross-bar is drawn up tight to the handle, the ligature is fully on the stretch. . . . . In using it, the cross-bar is pushed forward, and a noose made of the wire at the small extremity, of sufficient size to include the morbid growth, which it is then made to surround, and towards the roots of which it is pressed by means of the stem; the cross-bar is then drawn up smartly to the handle, while the point of the stem is pressed downwards; and it never fails of either cutting across or of drawing with it whatever was included in the noose."

The difficulty attendant upon the use of this instrument consists in getting the wire noose around the polypus, which frequently is of a very small size; another disadvantage is, that it cuts off a portion of the growth, instead of withdrawing it entire.

The instrument which I have been in the habit of using during several years at St. Mary's Hospital, as well as in private practice, with most satisfactory results, I have called the leverring forceps. In the interior of a tube is a delicate steel rod, the end of which is split into two portions, to each of which is fixed a small oval ring, measuring four or five lines long, and from two to three broad. These rings (the inner surfaces of which are flat) are separated from each other when the lever is not pressed; but when the lever is pressed, the rings are brought into contact. The instrument is introduced into the meatus with the rings apart; these may be made to enclose the polypus or a portion of it between them, and then, by pressing upon the lever, the polypus is seized, and can be drawn out.

Cases.

Case 3.—A cellular raspberry polypus in each ear removed by the lever-ring forceps; great improvement.—Mr. J., aged 20, in good health, but having a tendency to glandular enlargements, consulted me on March 7, 1853.

History.—When a child, he suffered on several occasions from attacks of deafness; these lasted from ten days to three or four months, but by degrees they disappeared. Between three and four years since the left ear began to discharge, and has continued to do so up to the present time. Within the last two months, the power of hearing in the left ear has so much decreased that he requires to be spoken to loud close to it. A month ago the right ear began to discharge, and it is nearly as deaf as the left.

Upon *examination*, the watch was heard by the left ear, when pressed against it, by the right when in contact with it. In each ear there was, near to the membrana tympani, a large vascular polypus. When an attempt at a forcible expiration was made with closed nostrils, air passed freely out of the left meatus, but not through the right. The mucous membrane of the fauces was thick and red.

Previous treatment.—Excision of the tonsils, and the introduction of cotton wool into the bottom of the meatus; neither operation was productive of benefit.

Treatment.—The polypus, by means of the lever-ring forceps, was first removed from the right ear. The patient stood upright, and reclined the head slightly towards the left shoulder. Mr. Avery's lamp being held between the teeth, the ear of the patient was drawn backwards by the left hand, so as to dilate and strengthen the meatus as much as possible; a large-sized speculum was then introduced; then, with the right hand, the lever-ring forceps was introduced down to the polypus, the rings having previously been brought into contact by pressing upon the lever. When the rings reached the polypus they were allowed to separate, and when thus apart they were made to surround the growth, and as soon as they did so the lever was pressed so as to bring the rings into contact. The instrument was then withdrawn, bringing with it the polypus, and leaving the membrana tympani exposed. During the whole of the operation I was able to see what I was doing, the rod of the instrument being so small as to occupy only a very small portion of the tube. On the following day the hearing of the patient was much improved, the watch being heard at a distance of two inches. The quantity of discharge had greatly diminished. The polypus was next removed from the left meatus, but as only small portions of it came away at a time, three or four operations were required. They were followed by much improvement. A large aperture was detected in the membrana tympani, and, by aid of the artificial membrane, the hearing power was greatly improved.

Case 4.—Obstruction of the Eustachian tube at the faucial orifice; Cellular polypus in the external meatus; Removal; Cure.—H. W., Esq., aged 19, an architect, consulted me on February 19, 1854, on account of deafness in both ears, and discharge from the right.

History.—Since a child has been subject to attacks of deafness during a cold, but they have disappeared after a duration of three or four weeks. About two years since, he had an attack of deafness, which was followed by discharge from the right ear; this has lately increased, and it is attended by a considerable diminution of the hearing power. At the present time he requires to be spoken to in a loud voice within the distance of a yard. Upon *examination*, the watch was heard only when in contact with the *right ear*. There was a considerable quantity of mucous discharge in the meatus. When removed, a red polypus, with numerous projections from its surface, was seen to occupy the inner half of the tube. The Eustachian tube impervious. *Left ear.*—Hearing distance six inches. Membrana tympani opaque, in parts calcareous. The Eustachian tube impervious. The mucous membrane of the fauces is red and thick.

Treatment.—On the 25th of February I removed, by means of the lever-ring forceps, a polypus as large as a horse-bean, which was attached to the posterior surface of the meatus, close to the membrana tympani. On the 1st of March, the discharge had nearly vanished; the membrana tympani was seen to be entire, but calcareous at parts. The hearing was much improved, the watch being heard at the distance of two inches. Tonic medicines were administered; the surface of the body to be sponged with vinegar and water, and an acid astringent gargle to be used thrice daily. March 8th.—Hears much better. Two days since, after gargling, a sudden crack was felt in the right ear, after which he heard most acutely. Does not hear quite so well to-day, but still hears general conversation. April 3rd.—The left ear has also much improved; can now hear perfectly. March, 1855.—I have seen this patient since, and he has remained quite well.

Case 5.—Cellular polypus, causing deafness and serious cerebral symptoms; Removal; Cure.—J. E., Esq., aged 21, was sent to me by Dr. Conolly on the 10th February, 1855, on account of deafness in the left ear, accompanied by occasional giddiness.

History.—Since six years of age has been subject to an offensive discharge from the left ear; at times there has also been a discharge of blood; has not experienced pain, but has frequently had a sensation of fullness in the ear, and when the ear has been pressed upon there has been considerable giddiness. Recently there have been experienced symptoms of unnatural mental excitement. Upon *examination* it was found that the watch was not heard, but that the crack of the nails was distinguished. On looking into the ear a polypus was observed within half-an-inch of the orifice of the meatus. It was of a deep red colour, and was covered by a transparent discharge. Upon pressure a sensation of giddiness was produced at once.

Treatment.—The polypus being of a considerable size and somewhat firm it was resolved to attempt its removal by means of the ring forceps. By means of it a considerable portion of the mass was extracted, but the roots were not brought away. Considerable relief at once followed the operation, and by means of the lever-ring forceps the remaining part of the morbid growth was removed. The membrana tympani was found to be entire, the hearing was greatly improved, and the head symptoms wholly disappeared.

LECTURES
ON
GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.,
Lecturer on General Natural History at the Government School of Mines and Fullerian Professor of Physiology, Royal Institution.

LECTURE IX.

The star-fishes and sea-urchins are the most familiar examples of the *Echinodermata*, a group not less remarkable for the peculiarities of their structure than for the difficulties by which its investigation is surrounded—difficultics so great as to have rendered the subject of Echinoderm anatomy, notwithstanding the labours of Munro, Tiedemann, Valentin, Sharpey and others, until the last few years, one of the most obscure in the whole range of Biology. But within these few years—scarcely more than ten—the genius and persevering research of a single man (a), already distinguished as the most eminent comparative anatomist and physiologist of his time—I mean Johannes Müller, of Berlin—have thrown a flood of light upon this difficult problem; and although much remains to be done, we are now better acquainted with the structure and development of the *Echinodermata*, than with those of most classes of the animal kingdom.

The *Echinodermata* are distinguished from the other Annuloida by the possession of a system of vessels, primarily developed as a diverticulum of the integument inwards, and so arranged as to play a very important part in the performance of the functions of locomotion. This system consists, firstly, of a circular vessel disposed around and traversed by, the œsophagus; secondly, of cœcal appendages to this vessel, whose function is unknown—the "Polian vesicles," and "racemose appendages" of the *Holothuridea*, *Echinidea*, and *Asteridea;* thirdly, of the madreporic canal or canals; fourthly, of vessels which radiate from the circular vessel along the parietes of the body, giving off lateral branches, which eventually enter the tubular "feet;" and fifthly, of the basal sacs, into which the canals of the feet dilate in most *Echinodermata*. The general arrangement of this system is diagrammatically represented in Fig. 1. The walls of all these vessels, etc., are

Fig. 1.

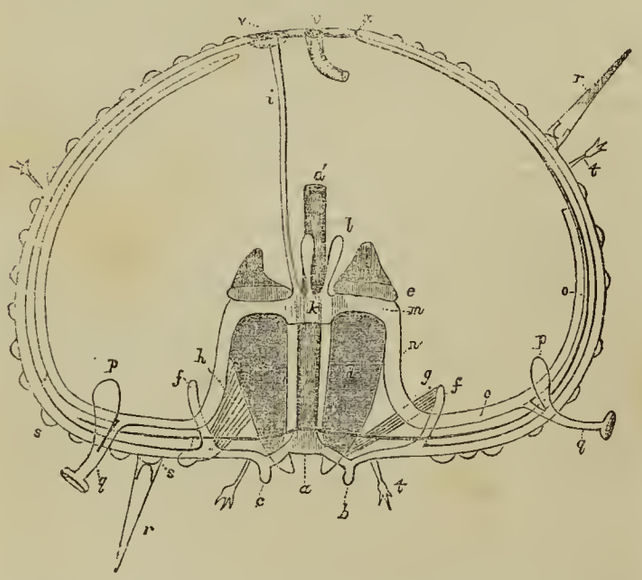
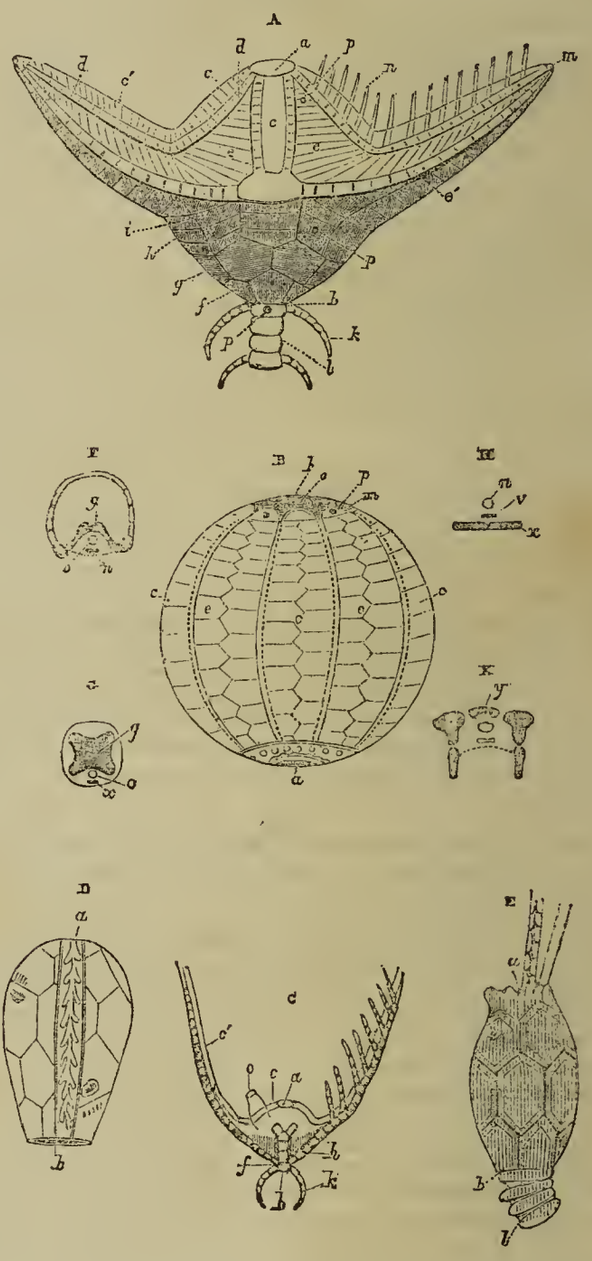


Diagram exhibiting the relations of the different systems of organs in an *Echinus*.—*a*. Mouth. *b*. Teeth. *c*. Lips. *d*. Alveoli. *e*. Falces. *f*. Auriculæ. *g*. Retractor and *h*. protractor muscles of lantern. *i*. Madreporic canal. *k*. Circular ambulacral vessel. *l*. Polian vesicle. *m*, *n*, *o*. Ambulacral vessel. *p*. Pedal vesicle. *q*. Foot or sucker. *r*. Spine. *s*. Tubercle to which it is articulated. *t*. Pedicellariæ. *u*. Anus. *v*. Madreporic tubercle. *x*. Ocular spot.

ciliated internally, and they contain a watery fluid, which is either derived directly from without, or is strained off from the fluid of the perivisceral cavity, through the madreporic canal. The feet are processes of the integument (or rather, *perisoma*, as the general soft coat of the body in the Echinodermata is conveniently termed), provided with muscular walls, while their basal vesicles are also contractile; and it is easily intelligible that, while the feet are retracted by the action of their proper muscles, they may be protruded by the contraction of the basal vesicles driving their contents into the pedal canals.

The series of feet which protrude along certain fixed lines from the body of an Echinoderm have been generally termed "ambulacra;" and hence we may distinguish the system of vessels which has just been described as the "ambulacral" vascular

Fig. 2.



A common plan of the *Echinoderms*, modified as an Echinid in B. As a Crinoid in C. As a Cystidean in D. and E. F. Section of a ray and ambulacrum of an Asterid. G. Of an Ophinrid. H. Of an Echinid. and K. Of Pentacrinus. *a*. Mouth and oral pole. *b*. Apex. *c*. Ambulacrum and ambulacral plates. *d* Adambulacral plates. *e*. Interambulacrum and Intermediate plates. *e*. Marginal plates. *f*. Basalia. *g*. Parabasalia. *h*. Radialia. *i*. Interradialia. *k*. Cirri. *l*. Stem-plates. *m*. Ocular plate. *n*. Pinnulæ. *o* Anus. *p*. Position of genital apertures and madreporic tubercle, varying from apical to oral. The shaded portion represents the antambulacral region. In the sections P, G, H, K, the letters *o*, *n*, *x*, *v* must be disregarded. In each the circle represents the ambulacral vessel the band below it the nerve; while below this is the perisoma.

system. I avoid the term "water-vascular system," more commonly in use, in order to prevent confusion with the vascular

(a) I say advisedly a "single" man, for the discoveries of Sars, of Koren, and Danielssen, of Derbes, Dufosse, Krohn, and others, however important in themselves, are wholly subsidiary when compared with those of Müller.

system of the *Trematoda*, whose homology with the "water-vessels" of the Echinoderms must not be taken for granted.

Now, the existence of an ambulacral vascular system has, as yet, been demonstrated only in the following orders:—*Echinidea*, *Ophiuridea*, *Crinoidea*, *Asteridea*, and *Holothuridea*, with which the fossil *Cystidea* and *Blastoidea* are inseparably connected; and I, therefore, limit the *Echinodermata* to the very natural group formed by these orders, excluding from consideration the *Gephyrea* of De Quatrefages, which are commonly included in the same class. We shall best arrive at a comprehension of the relations of the different forms of the *Echinodermata* to one another, by studying an imaginary common plan, such as that in (Fig. 2 A), from which all the forms may be derived by excess or defect of development of different parts and regions. A spheroidal body is produced into five arms or radii, equatorially, while at the one pole, thence called the oral pole, the mouth is placed. The opposite extremity is termed the apex or apical pole. The regions from these poles to the equator will then be respectively oral and apical regions.

A plane drawn through the mouth, apex, and the middle of any radius or arm will be a "radial plane," and any part situated in that plane may be termed "radial." On the other hand, any plane drawn through the mouth and apex, which does not cut a radius, is an "interradial plane," and any part situated in it will be interradial. From the mouth to the extremities of the arm, radiate spaces in which the feet are arranged; these, as already stated, are called the "ambulacra," and from possessing them, the whole oral half of the surface of the body or calyx, and of the arm, is termed the ambulacral region. On the other hand, the apical half of the surface of the body and arm, from being opposite to the ambulacral is called the "antambulacral" surface. In the ambulacral region again, a distinction must be made between the inter-radial "inter-ambulacra" and the radial "ambulacra," while the ambulacra themselves are divided into a "calycine" portion seated upon the body, and a "brachial" portion supported by the arms.

It is the *Asteridea*, *Ophiuridea*, and *Crinoidea*, known popularly as "star-fishes," which depart least from this common plan, the ambulacral and ant-ambulacral regions being in all these about equally developed, and the arms in most cases distinctly marked off from the body (Fig. 2 C). But there are certain star-fishes which are merely pentagonal; suppose one of these, as Müller suggests, to be elastic, so as to be capable of being distended with air into a globular form—then the ambulacral region, with its five ambulacra, would occupy the entire oral hemisphere, while the ant-ambulacral region would occupy the entire apical hemisphere. There is no Echinoderm which exhibits this globular form with equality of the ambulacral and antambulacral regions; but if we suppose the ambulacral region to increase at the expense of the antambulacral, so that the latter eventually became reduced to a very small space around the apex, the result would be the form of *Echinus* or of *Holothuria;* (Fig. 2 B) in which the ambulacral region greatly predominates, the arms disappear and the ambulacra are consequently entirely calycine. One moiety of the *Cystidea* are in the same predicament (Fig. 2 D); but other *Cystidea*, such as *Echinoencrinus*, *Prumocystites*, *Cryptocrinus*, present a precisely opposite condition, the antambulacral region here extending into the close vicinity of the mouth, and greatly predominating over the ambulacral region (Fig. 2 E). In the *Blastoidea* again, the antambulacral and ambulacral regions are more upon an equality, but the body is sub-cylindrical or prismatic in shape; otherwise they would offer a close approximation to the hypothetical form, intermediate between an *Echinus* and a star-fish, mentioned above.

A more or less complete calcareous skeleton is always developed *within* the perisoma of the Echinoderms, resembling that of the *Actinozoa*, not only in this respect, but also in consisting at first of detached spicula. In this form the skeleton remains in the *Holothuridea*, but in the other Echinoderms, the spicula coalesce into networks, which may become consolidated into dense plates by additional deposits. It is by the different shape and arrangement of these plates that the diversity exhibited by the skeletons of different *Echinodermata* is produced.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ON THORACIC ANEURISM,

MORE ESPECIALLY IN REFERENCE TO ITS DIAGNOSIS.

By HENRY WILLIAM FULLER, M.D Cantab., F.R.C.P.
Assistant Physician to St. George's Hospital, etc. etc,

Thoracic aneurisms are too frequently regarded as constituting an uninteresting branch of Medical study. Their diagnosis is often difficult, their treatment unsatisfactory, and their termination almost invariably fatal. Their occurrence, moreover, is comparatively rare, therefore, by many, it is deemed useless to devote much attention to a subject which appears of so little practical importance. Nothing, however, can be more false than such an estimate of the disease in question. Few lesions afford a wider field for the exercise of Professional skill. Even when they present themselves in such legible characters that their nature cannot be overlooked, the sufferings of the patient may be greatly alleviated by judicious and appropriate treatment; and where, as is much more usually the case, their symptoms are involved in great obscurity, an early diagnosis is not only essential, as a guide to the proper treatment of the disease, but, in many cases, as a test of Professional skill, is necessary for the maintenance of our reputation.

It has been urged, however, that the difficulties by which the subject of thoracic aneurism is surrounded are such as to hold out little inducement to its study; and that, except in some few instances, where the nature of the mischief is obvious, and where little study is requisite for its elucidation, the diagnosis must rest on such uncertain grounds as to amount to little more than vague conjecture. The opinions thus expressed are certainly inconsistent with the result of my experience, and are, I am convinced, erroneous. They are to be attributed, I believe, to the undue importance usually attached to the absence of the so-called pathognomonic physical signs of the disease, and to the consequent neglect with which the general symptoms have been regarded; and, as this may be corrected by statistical reference to actual cases of the disease, by a careful history of their several symptoms, and the peculiarities by which they were marked, I propose to base the following remarks on cases which have fallen under my own observation at St. George's Hospital or elsewhere. I hope thus to be enabled to show that the physical signs so commonly relied on are comparatively seldom present, and, when present, are apt to be fallacious; whereas, certain general symptoms, though of a negative character, and hardly sufficient, when taken separately, to excite suspicion of organic lesion, together afford almost conclusive evidence of the existence of the disease in question.

The diagnostic marks most commonly insisted on, more especially when the arch of the aorta is the seat of aneurismal dilatation, are—pulsation above or below the clavicle or at the top of the sternum, accompanied by a peculiar purring tremor, and by a single or sometimes double murmur, altogether distinct from that produced by valvular mischief. These signs, according to Dr. Hope, are usually, if not always attainable by means of the stethoscope. "According to my experience," he says (page 442), "the cylinder is scarcely less capable of affording decisive indications of pectoral than of ventral aneurism;" and then, after asserting (p. 447) that "pulsation attends every species of dilatation of the aorta," he implies that aneurismal murmur is a constant attendant on aneurismal dilatation. It is not surprising, then, that many should consider the mere absence of such signs conclusive evidence against the existence of this disease, and should pay little heed to certain general symptoms, which would otherwise lead to a correct diagnosis. Experience, however, proves that the physical signs of thoracic aneurism are by no means so constant and obvious as was asserted by Dr. Hope. Out of 28 cases of which I have notes (a), in 10 only was a pulsation perceptible, in 9 only was there the slightest tremor, and in 17 only was there any murmur; whilst, out of 12 cases, reported by Dr. Greene, in an able article in the "Dublin Quarterly Journal" (for 1846), 4 cases presented no pulsation, and 6 cases were unattended by murmur. In all these cases,

(a) These do not include cases in which the aneurism pointed externally and in which, therefore, the tumour could be seen and felt.

the existence of aneurism was suspected during life, and most careful and repeated stethoscopic examinations were made, with the view of obtaining some confirmation of the diagnosis; so that it was not for want of careful examination that no clue could be thus obtained as to the real nature of the lesion. The question, therefore, naturally suggests itself, How was the nature of the disease so accurately predicted? or, to put the question in a more general form, What combination of circumstances justifies us in suspecting, and acting on a suspicion, of the existence of aneurism?

In many cases the presence of aneurismal dilatation is manifested by symptoms not to be mistaken. The heart's action is, perhaps, so greatly disturbed as to direct attention to the seat of mischief, and then extended dulness on percussion, abnormal impulse, aneurismal murmur and tremor, together, perhaps, with tumescence of the superficial thoracic veins, and obstruction of the pulse very clearly indicate the nature of the disease; and even if aneurismal murmur be absent, as it is sometimes even in cases where distinct impulse can be felt, still careful attention will generally reveal the nature of the case, and the Physician, aware of serious mischief, may forewarn his patient of his perilous condition.

But it often happens that the arterial tumour of no great size produces none of these obvious symptoms. Arising from the ascending portion of the aorta, or possibly from its arch, and implicating its posterior and lower rather than the anterior and upper part of the vessel, it forces a passage backwards; or springing from the descending aorta it pushes its way forwards and occupies much the same position in the chest. In such cases it is buried deep among the structures within the thorax, and, consequently, although the patient may in some few instances be sensible of pulsation; its diagnosis by means of physical signs is highly improbable. The tumour is overlapped by the lung, and, if well, does not occasion dulness on percussion; it is often little larger than a walnut, and does not give rise to external impulse; it is unaccompanied by murmur, and the stethoscope, therefore, whether applied in front or on the back affords no precise information on the subject, and if the heart's action is very little interfered with, we obtain none of the physical symptoms of aneurism, unless the pulse at the wrist be unequal or wanting.

But if the diagnostic physical marks of an aneurism pointing superficially are wanting, they are replaced by other signs no less striking and important. The different organs are so situated in the chest that the primary division of the bronchi, the trachea, the œsophagus, the spine, and the large vessels can hardly all escape from pressure of a tumour occupying a central position in the superior part of the thoracic cavity. Accordingly, cough, hæmoptysis, dyspnœa, and wheezing, alteration of the voice, difficulty in swallowing, and pain in the back, together with some modification of the pulse, are some of the symptoms which present themselves under these circumstances.

Cough very generally, if not always, exists, and presents peculiarities which, though not pathognomonic, are yet sufficiently marked to excite a suspicion of aneurismal pressure. It is generally paroxysmal in the first instance, and frequently loud, shrill, and ringing. It is severe at one time, almost absent at another; relieved by certain postures, aggravated or immediately induced by others. When accompanied by sputa, as it generally is at some time during the progress of the disease, the matters expectorated afford no clue to the real nature of the existing mischief. They consist sometimes of a thin, semi-transparent, serous fluid; at others of glassy or else of a white, frothy mucus; while in other instances again, or in the later stages of the disease, they consist of muco-purulent matter of varying colour and consistence. These are occasionally streaked or mixed with blood, arising from pressure on the pulmonary veins, from hæmorrhage during ulceration of the bronchial tubes, or from gradual oozing from the sac itself, when it has ulcerated through and communicates directly with the cavity of the air-tubes.

Dyspnœa is almost always present. In most cases it is severe at first, and its cause is so obscure that its presence appears unaccountable. It is paroxysmal and often very violent in its character, yet seldom lasts above one or two hours; it is quite independent of atmospheric changes, and is much relieved by certain postures, which vary, of course, according to the exact position of the tumour. It may be attended by little or no cardiac disturbance; the patient may be entirely free from pain, and may inflate his chest without fear or difficulty, and, though a sense of oppression at the chest is almost constant, and suffocation occasionally seems imminent, yet the respiration is generally vesicular, though possibly more feeble on the one side than on the other. This symptom may, of course, be complicated by the presence of tubercular disease of the lung; but the co-existence of such diseases with aneurism is rare, and cannot be regarded as likely in most cases to interfere with the diagnosis; and if bronchitis, pneumonia, or pleurisy occur, or if emphysema supervene and aggravate the dyspnœa, a due regard to the history of the case, and to the order in which the symptoms arose, will generally serve to show the true relationship in which these changes stand to the original dyspnœa resulting from the aneurismal pressure.

The wheezing is sometimes of so peculiar and singular a character as hardly to be confounded with that produced by any other cause. It is markedly stridulous and comes on gradually, without fever or other constitutional disturbance; it increases progressively, yet is not accompanied by emaciation, or by the unhealthy aspect of malignant disease; it is relieved or aggravated by the position of the patient, and though it frequently accompanies the inspiratory effort, it is usually best marked during the act of expiration. Cough may have preceded it, and is generally one of its concomitant evils; but the patient's health is but little interfered with, and neither the cough, the dyspnœa, nor the wheezing, are much relieved by ordinary treatment. Indeed, being referable to one and the same cause, these symptoms are oftentimes relieved or aggravated by the same circumstances. They are generally relieved by a free venesection, as also by spontaneous hæmorrhage, which causes an actual diminution in the size and bulk of the aneurismal tumour, and thus lessens the pressure on the trachea and bronchial tubes. Again, when the tumour is pressing on the anterior part of the trachea, they are alleviated by an upright posture, or rather by the patient's leaning somewhat forwards with his elbows resting on his knees. This, in five instances, of which I have notes, was the easy, and, therefore, the favourite, position of the patient. In other instances, where the aneurism presses on the larger bronchi, the patient is relieved by assuming a semi-erect position, with his body inclined to the right side. This results from the fact that the left bronchus is more frequently pressed upon than the right, and, when this is the case, the stethoscope shows that the air has much freer access to the lung when the patient lies on his right, than on his left side, the mere attempt to assume the latter posture inducing a severe paroxysm of cough and dyspnœa. Thus, in some instances the exact position of the aneurism in the chest can be accurately predicted during life.

But the symptoms just mentioned, though sometimes arising from one and the same cause, may be produced by causes totally different. While the wheezing is excited by the alteration in the form of the air-tubes, or, as is sometimes the case, by œdema and turgescence of the sub-mucous cellular tissue of the trachea and larger bronchi, caused by the constant pressure and irritation of the tumour, the cough and dyspnœa may be mainly attributable to other secondary causes. As the sac enlarges and becomes filled with coagula, the pulmonary vessels may be pressed upon, or the heart's action may be directly interfered with; the phrenic nerve may be irritated, or the pneumo-gastric, or some of its branches, may be pressed upon, and thus I am satisfied that the symptoms in question, when most severe, are not unfrequently produced. And according as they are due to one cause or another, so do they vary in their character. Sometimes abdominal breathing is greatly deficient, at others it is exceedingly violent and spasmodic. In one instance, during a severe paroxysm, the respiratory efforts succeed each other in rapid succession; in another they are slow, deep, and forcible, effected by the joint action of all the muscles of respiration; and whilst in one case the cough is hardly attended by any difficulty of breathing, in the other the dyspnœa is the more prominent feature. In one case, of which I have notes, I am satisfied that death, which occurred suddenly, without any hæmorrhage, was the immediate result of suffocation, induced by pressure on the par vagum. Several instances are on record in which the post-mortem appearances—the absence of any material disease of the heart, or of any other organic lesion, calculated to give rise to sudden death—leave little doubt as to the agency of this cause.

The modification which the character of the voice under-

goes not unfrequently resembles that which accompanies chronic laryngitis. But, unlike the voice of chronic laryngitis, the voice, when modified by aneurismal pressure, is by no means constantly or even generally of the same character. At one time it is small, faint, tremulous, and whispering; at another, in the same patient, it is attended only by some little hoarseness; at another, again, it is shrill and harsh, or resembling the voice of laryngeal ulceration. Possibly these different modifications in the tone of the voice may be referable to the difference of its exciting cause in different cases, or even in the same case at different periods; each modification depending either on alteration in the capacity or shape of the air-tubes; or on compression, more or less complete, of the recurrent nerve, producing atrophy of the laryngeal muscles; or upon œdema of the glottis, which dissection has shown to have occurred in several instances where the return of the blood to the heart has been much retarded. Whether these variations of tone can each be accurately referred to its corresponding pathological condition of the air-passages, and what each precise condition may be, experience does not yet enable us to determine; but it is quite certain that they sometimes occur with great rapidity, are apparently unconnected with corresponding constitutional changes, are altogether uninfluenced by external agency, and appear to be affected solely by the position of the patient, and by the varying condition of his circulating system; so much so that the whole character of the voice is sometimes altered by depletion. Thus, if viewed attentively day after day for some little time, this symptom alone may be made to afford very valuable information.

(To be continued.)

ON THE EARLY PERFORMANCE OF TRACHEOTOMY IN CROUP.

By G. M. JONES, Esq.,
Surgeon to the Jersey Hospital.

The successful result of an operation leads us naturally to recommend its adoption in other cases in which identity of character exists. To propose an operation is one thing, but to induce others to follow in our footsteps requires something more, we must be able to show its utility, probably its absolute necessity, and that the well-being, oftentimes the very existence, of our patient depends on its performance. To hear some speak of tracheotomy in croup would almost lead us to imagine that the operation is a new one, a mere experiment and the offspring of some enthusiastic innovator (a). It would be foreign to my purpose to prove the contrary, my present object being to endeavour to persuade its contemners that they may be in error, and to show that if resorted to in time, it may be the means, the only means left us to preserve the life of a fellow-creature, the greatest and the most heartfelt wish a Medical man can experience.

It is not the favourable result just given the history of (b), which leads me to speak highly of the operation. I have long been impressed with its propriety, and only waited an opportunity to judge for myself—but even had my views at any time been different, or had my case terminated fatally, the success which has attended M. Trousseau's endeavours, and which deservedly entitle him to be looked upon as the first French authority on this subject, and the unwearied exertions of my friend Mr. Henry Smith, of London, which place him on the same level as his Parisian competitor, would certainly have shaken, or altered altogether my views, even had they before been opposed to operative interference.

It may reasonably be asked—Why is tracheotomy in croup so little resorted to in England? Why, to make use of a homely phrase, is it at such a discount? The reason is easily explained—we have the prejudices of parents to overcome—the opinion of some of the highest authorities to oppose—and the ill success which has almost invariably attended its performance to account for in such a manner, as to show that death has possibly arisen, more from neglect or inattention to other important points, than to the operation itself, or to any effect it may have produced on the human economy.

It is by no means surprising, that parents, particularly in the lower grades of life, object to submit their child to an operation, the nature of which they will naturally make inquiries about, and which, when explained, conveys a degree of horror to their minds, only surpassed by the reply given to their second question—its probable result in the present instance, and the amount of success which has attended it in others? The conscientious Surgeon cannot promise a certain cure, a circumstance not to be overcome by the ignorant—precious time is lost, till at last a tardy acquiescence, at times an earnest entreaty to do anything which may offer a chance of saving the sufferer is given; but then the last stage of the disease has already set in, the operation is performed, and is almost immediately, or in a few hours followed by death. As a natural consequence the operator has all the odium, and the disease for which it was performed, and which Dr. West very justly says, "is unquestionably one of the most dangerous to which childhood is liable," is forgotten. But if we have this to contend with among the lower orders, the Surgeon has equal difficulties, equal unfavourable chances of success among the superior classes of society; he has "the opinion of some of the highest authorities to oppose;" and if called in by them, or by those who adhere to their views, he comes as the "forlorn hope," oftentimes as the "last witness to expiring life;"—this brings me to the most important point of my subject, "the endeavour to persuade its contemners that they may be in error."

Many authors of indisputably high reputation, whose works are constantly consulted, and whose views and treatment respecting the nature and cure of disease are the beacons by which thousands are guided in their line of practice, speak of tracheotomy in croup in a manner which, to say the least, offers but little encouragement to its performance. I shall quote the words of a few of the most eminent on the subject:—"When signs of approaching death have come on, lividity of the lips, coldness of the skin, and a tendency to stupor, the question *will* obtrude itself, whether there may not still be a chance of saving the patient by tracheotomy. In the first place, the operation is much more difficult to execute upon children, than upon adults, and is attended with more perplexing hæmorrhage; but a greater objection is the existence of the preternatural membrane, which precludes air being admitted into the lungs. Tracheotomy has again and again been practised in this complaint to no purpose, and I should be inclined to look upon it as absolutely hopeless, but for two instances recorded in the Medico-Chirurgical Transactions." (c.) "Whenever tracheotomy is performed, it should be after every other remedy has failed, and not before any other has been attempted, as the exudation extends through the ramifications of the trachea, and probably through the lungs, there is but little hope, after all, of any benefit from such an operation." (d.) "There does not appear to be a chance of success from this operation in any case wherein the treatment developed above has failed. . . . I perfectly agree with Goelis, Cheyne, and many others, in concluding that it should seldom or never be attempted in this disease." (e.) "In England the result of almost every instance of the performance of tracheotomy in croup has been so unfavourable that the operation is scarcely looked upon as a justifiable proceeding." (f.) Such, then, are the opinions propounded by some of the most weighty of English authorities.

Under such circumstances, can it be a matter of astonishment that few General Practitioners are willing to attempt an operation, the result of which is likely to bring discredit on

(a) Although croup, as a distinct disease, and trachcotomy, as one of the means employed for its cure, have only been brought conspicuously into notice within the last years, both are undoubtedly of ancient date. The quinsy described by Hippocrates as existing "without any evident tumour in the neck or fauces, but attended with violent strangulation and difficult respiration, and which proves fatal either on the first or third day," and the cynanche of the Greeks, stated to be "a contraction of the orifice of the aspera arteria, by which not only the voice is suppressed, but respiration is performed with difficulty, and sometimes wholly stopped, often in so short a time as to kill the patient in twenty-four hours, or the third day," is the same affection which we now designate as "croup;" and the following passage, also to be met with in one of the earlier writers, unquestionably proves that tracheotomy was then one of the established methods of cure in cases of "cynanche trachealis":—"But if, in a quinsy, after the use of proper medicines and repeated evacuations of blood from different veins, there is still a necessity for making an incision in the trachea, in order to prevent suffocation, the operation may be performed in three different manners," etc.

(b) Vide Medical Times and Gazette, Oct. 4.

(c) Dr Watson's Lectures on the Practice of Physic.
(d) Dr. Mason Good's Study of Medicine.
(e) Dr. Copland's Dictionary of Practical Medicine.
(f) Dr. West on the Diseases of Infancy and Childhood.

themselves? Now let me ask, from what cause or causes combined is this operation so generally followed by fatal consequences? I have no hesitation in stating that a contrary result might, in all probability, ensue, if the trachea were opened, not "when signs of approaching death have come on," nor "when every other remedy has failed," but at a much earlier stage of the disease—in a word, before all hope of the efficacy of medicine has ceased altogether. Better to expunge the operation of tracheotomy in cynanche trachealis from all works on Practical Surgery, than perform it under circumstances, which, from the weakened and exhausted state of the patient, must render an operation much less formidable than this one—an accelerator of death, and not the means by which death may be averted. Why are the statistical returns in cases of strangulated hernia more favourable now than formerly? is it not from operative measures being resorted to before symptoms of approaching dissolution manifest themselves? and in what light would the advice of a Surgeon be looked on now, were he to recommend us to wait till repeated vomiting of fæcal matter took place, before subjecting his patient to herniotomy? Whatever theories may have been broached, whatever views Medical men may have taken of the causes and other circumstances connected with croup, there exists, I believe, among the most experienced almost, if not altogether, unanimity of opinion, that blood-letting, antimony, calomel, and warm baths, are the means we are called upon, first of all, to employ in this dangerous disease. I have too often had recourse to them, and others as their adjuncts, not to add my humble testimony to their efficacy; and, happily, many cases will yield to their judicious employment; but that all the remedies recommended are to be carried out *seriatim*, and some tried a second and even a third time as a matter of course, before resorting to tracheotomy, appears to me the point which high authorities ought to employ their pen in condemning, rather than dwell on the fatality of an operation, possibly occasioned, in very many instances, from too systematically following out the plan recommended by writers.

Are there not diseases in which we can safely pronounce our patients better, although the symptoms continue stationary for a time? This is exemplified in several forms of fever; and, on the other hand, we meet with complaints in which a stationary state must be regarded as most unfavourable, and croup can be brought forward as an illustration. For instance, we are called on at an early hour to attend a child labouring under a severe form of this disease, in the evening we find our patient possibly not worse, but in no respect better. Are we, then, to rest satisfied in imagining that, although we have not gained, still we have not lost ground? If we think so we deceive ourselves; for a whole day we have been unwearied in our exertions, we have exhausted all the means Medical science has placed at our disposal, and with no better result than having been able to keep symptoms stationary, and that in an affection which not unfrequently runs its fatal course in eighteen, twenty-four, or thirty-six hours. Can a repetition of already tried remedies bring on an improved condition? I do not mean to state this can never happen, but I feel confident practical men will bear me out when I say that, in a vast majority of cases, the absence of any improvement after steadily pursuing for twelve or sixteen hours the Medical course most approved of, leaves but very slender hopes that a continuation in a similar line of practice will be crowned with success.

I have already spoken of the improved statistical returns in cases of strangulated hernia, and the probable reason why they are so satisfactory. Those who have attentively watched the progress of Surgery must admit that it yearly makes rapid strides towards perfection; and it appears to me that there is, in many respects, a striking resemblance between hernia and croup, not only as far as regards symptoms, but also with respect to the indications of cure. In hernia we have strangulation of the bowel to overcome, in croup, obstruction to the passage of air to remove; both diseases may come on suddenly, and without premonitory symptoms; in each the most prompt and energetic treatment is required, both are fraught with the greatest danger to life, each runs its course rapidly; the same delay which may prove fatal in one case becomes equally so in the other, and the discriminating judgment which tells the Surgeon when it might be hazardous to delay operative interference, guides, or ought to guide, the Physician in recommending Surgical means to supersede, for a time, those he has zealously, though unsuccessfully, employed.

Is the operation a dangerous one? This is a question not easily solved: some authorities say that it is, others are of a contrary opinion (g), and when this is the case, I know of no better rule to follow than this: not allow ourselves to operate solely under the latter impression; or be intimidated by the former; to hope the one, and be at the same time fully prepared for any casualty which may supervene. But that which must ever make tracheotomy in croup dangerous, is, the performing it when symptoms of dissolution are at hand. Blood lost then is assuredly "life's blood," and if this operation is at any time attended with "perplexing hæmorrhage," what effect must even the loss of the most trifling quantity produce on the dying; almost as well may we operate on the dead subject in the hope of seeing returning life, as on the expiring with the expectation of witnessing recovery.

In recommending an earlier performance of tracheotomy in croup than is practised in England or advocated by British writers, I am far from advising it to supersede other measures (compatible with existing symptoms). It is said that in France there are many instances in which this operation has been performed on patients whose disease would probably have been amenable to other treatment, and cases are mentioned in which none of any description had been tried before. This practice is not advisable, for there is no operation, however trivial it may appear, which can be positively pronounced as free of ulterior danger, and consequently none ought ever to be performed unless really necessary; thus it appears that in France, Surgeons often operate earlier than is required, while in England they almost invariably do so too late. The observations I have made, are intended to induce Practitioners to adopt a middle course, that is to be neither too hasty nor tardy, but to be guided in a case of croup, as they would in one of strangulated hernia.

The success this operation has been attended with, in France, is most encouraging; but there is another reason, besides operating earlier than we do, which undoubtedly gives our continental brethren an immense vantage ground over us. There croup presents a different character to that which it exhibits in England; with us it is certainly a much more dangerous complaint. This difference arises, in a great measure, if not altogether, from the parts more materially implicated. "In France, croupal symptoms are induced, in the majority of cases, by the extension to the larynx of false membrane, originally deposited on the fauces and left palate, while the wind-pipe itself is comparatively seldom in a state of active inflammation, often altogether unaffected; and the bronchitis and pneumonia, which in this country so often, and so seriously complicate the disease, are of less common occurrence" (h). But it appears to me, that it is this very difference in type which ought to lead us to effect an exchange of treatment. In England, the symptoms brought on by croup are not unfrequently more dangerous than the original disease, to wit, bronchitis and lung affections will follow, but not often precede cynanche trachealis. Both these formidable affections are in a greater measure, if not altogether, dependent on an obstruction to the passage of air; so that, in overcoming this as quickly as possible, we prevent congestion, and thus have to grapple with one, instead of three separate diseases.

My views are so much in harmony with those expressed by Mr. Smith in his valuable paper in the *Medical Times and Gazette*, of the 26th January, 1856 (i), that I feel more confidence in stating my conviction that—notwithstanding the difference both in the nature and the type of croup in this country, and the more formidable character it puts on than is generally met with in France—our earlier introduction of air would not only give us a larger percentage of recoveries, but would place this operation in the same favourable light in which it is now regarded in Paris and other parts of

(g) Casserius pronounces, "those men unskilful, cowardly, and even cruel, who foolishly neglect this operation, which is often safe in itself, and attended with the most speedy and salutary effects, and who suffer their patients to die for want of this proper and seasonable assistance."

(h) Dr. West on the Diseases of Infancy and Childhood.

(i) I cannot too strongly recommend the perusal of this valuable paper to those who are interested in the treatment of this dangerous disease. Mr. Smith, with that characteristic candour which speaks volumes in his favour, is not backward in acknowledging his own failures, while he points out the success of another in proof of the desirableness of this operation."

France (j). Success would enable us to speak with more confidence as to a favourable result in those cases to which we are called early, so that the prejudices of the ignorant would be more easily overcome, and the Surgeon be found at the bed-side of the opulent, not as at present, when all other remedies have failed, and when death is at hand, but at a time when there is still strength enough and hope enough left, to lead to as reasonable a prospect of recovery from tracheotomy, as was before held out by each of the remedies which had already preceded its performance.

ON THE MORTALITY OF THE METROPOLIS DURING THE PAST SUMMER.

By J. J. FOX, Esq.

XI. *Mortality of the Summer from all causes.*

In the thirteen weeks ending September 27 there were registered 14,066 deaths, which, if we assume the population to have increased since the census of 1851 at the same rate as it did between 1841 and 1851, is at the rate of 537 to 100,000 persons living at the middle of the quarter. To obtain a tolerably correct average of the usual summer mortality, we may omit from the calculation the deaths from cholera in 1849 and 1854; on this assumption, the average summer mortality for sixteen years, viz., from 1840 to 1855, will be 563 to 100,000. The present summer is, therefore, about 4½ per cent. below the average.

XII. *Range of Summer Mortality in Sixteen Years.*

The amount of range in the summer mortality, or difference between the mortalities of the most healthy and least healthy summers, is very great, if we include the deaths caused by the two epidemic invasions of cholera; but, if these are omitted, it is less than that of either of the other quarters of the year. The lowest summer mortality of the last sixteen years was in 1850, when it amounted to 501; the highest was in 1849, when it reached the proportion of 613, exclusive of cholera, and 1177 inclusive. The difference between the most healthy and least healthy summers is, therefore (excluding the cholera deaths), 112 in 100,000, which is just 20 per cent. of the average summer mortality.

In my former paper, on the Mortality of the Spring, I showed that the range of that quarter was 21 per cent. of the average mortality, and of the Winter 32 per cent.

XIII. *Distribution of the Summer Mortality among Various Diseases.*

The total mortality of the past summer being, then, 4½ per cent. below the average, let us see how this degree of relative healthiness extends to the various diseases, the sum of which make up the total mortality. It is only important to notice the principal causes and classes of causes, selecting such as form an appreciable fraction of the mortality, and such as, from tolerable simplicity of diagnosis, may be depended on for giving accurate results. In my former papers I have divided these causes into three groups, according as the mortality from them is *above* the average of the past years; *below* the average, but not lower than the total mortality; or, thirdly, *below* the average, and differing from it by a larger percentage than the total mortality does. Adopting the same method, we will enumerate the principal diseases and classes of disease in three lists, adding to each the percentage by which it differs (either in excess or defect) from the average mortality by that disease or class of diseases in former summers.

The averages with which the mortalities of this summer are compared are not all derived from the same number of years; in many instances they are derived from the sixteen years 1840—1855; but in others, from alterations in the Registrar-General's arrangement, or from improved nomenclature used by the certifiers of the cause of death, it did not seem safe to go back so many years. In these cases an average is generally taken from the last nine or ten years.

(j) "In certain European countries, and in England particularly, tracheotomy in cases of croup is still so isolated an operation, that in all Great Britain it is not so much practised as in Paris alone."—Lectures on Tracheotomy in Croup by Professor Trousseau.

A. Causes of death above the average of former summers:—

	Per cent.
Diseases of the kidneys	31
Measles	20
Bronchitis	16
Croup	14
Class of rheumatic diseases	14
Premature birth and debility	9
Diseases of respiratory organs	7½
Pneumonia	5½
Zymotic diseases(a)	1½
Consumption	1½
Hooping cough	1
Diseases of uncertain seat	½

B. Causes of death at or below the average of former summers, but not so much below as the total mortality:—

	Per cent.
Diseases of the heart, etc.	—
Apoplexy	½
Diarrhœa	2½
Paralysis	4

C. Causes of death below the average of former summers, and differing from the average by a greater percentage than the total mortality:—

	Per cent.
Erysipelas	5½
Diseases of digestive organs	16½
Hydrocephalus, cephalitis, and convulsions	18½
Teething	22
Typhus	22
Scarlatina	30
Diseases of nervous system	31½
Smallpox	52

XIV. *Comparison of the Summer Mortality with those of the preceding Spring and Winter.*

A glance at these lists is sufficient to show what have been the diseases, in the past summer, to which the term *prevalent* may be applied; and those, on the other hand, which have had less than their usual destructive influence on human life. It is worth while, also, to compare them with the similar enumerations for the spring and winter of this year, so as to notice what changes have occurred, or are occurring, in the various classes.

The total mortality, as compared with the average of the respective seasons, rose from 16½ per cent. below the average in the winter to 4 per cent. below in the spring, and continues at nearly the same level.

The class of zymotic diseases was 16 per cent. below the average in the winter, rose to 7 per cent. below in the spring, and has now increased to 1½ per cent. above.

Diseases of the nervous system, which had increased in the spring, have now undergone very large diminution.

Diseases of the heart and blood-vessels have descended from 7 per cent. above to the average mortality.

Diseases of the respiratory organs, on the contrary, have steadily increased; in the winter they were 33 per cent. below, in the spring 4 per cent. below, now they are 7½ per cent. above.

The prevalence of diseases of the digestive organs has diminished.

Diseases of the kidneys, which, in the winter and spring were 1½ per cent. and 2 per cent. above the average, have suddenly risen to 31 per cent. above.

Diseases of the bones and joints, including rheumatism and rheumatic fever, were low in the spring, but rose greatly above the average in the summer.

The mortality from premature birth and debility has gradually increased, being 5 per cent. below in the winter, 1 per cent, below in the spring, and now as much as 9 per cent. above.

Small-pox has continued to decline, being, in the three seasons respectively, 18, 38, and 52 per cent. below the averages.

Measles rose very greatly from the winter to the spring, but continues near the same level in the summer.

Scarlatina, which kept about the same level (a low one) in the winter and spring, has declined still lower.

Hooping-cough has considerably increased, but is still only 1 per cent. above the average.

(a) The average with which I have compared deaths from zymotic diseases is exclusive of the deaths from cholera in 1849 and 1854.

Croup is still considerably above the average, but greatly declined from the extreme height, 67 per cent., which it manifested in the spring.

Diarrhœa is still a little below the average, although it has sustained a very large rise, having been 43 per cent below in the winter, and 29 in the spring.

Typhus, which was considerably above the average in the winter, and still more so in the spring, has sunk to a very large percentage, below.

Erysipelas declined between the winter and the spring; since then has risen considerably, but is still below the average.

Consumption has undergone a steady increase, having been 15 per cent. below the average in the winter, 4 per cent. below in the spring, but now 1½ per cent. above.

Hydrocephalus, cephalitis, and convulsions were very low in the winter, increased somewhat in the spring, but have now gone back to what they were in the winter.

Apoplexy has slowly risen from the winter to the summer, and is now about the average.

Paralysis continues about the same degree below the average, as it was in the spring; in the winter it had been lower still.

Bronchitis has undergone considerable rise; it was 18½ per cent. below in the winter, 5½ above in the spring, and 16 above in the summer.

The "march" of pneumonia has been almost identical with that of bronchitis, increasing from 28 per cent. below the average in the winter to 3½ below in the spring, and 5½ above in the summer; its relation to the average has kept about the same distance, namely, 9 or 10, from the relation to the average of bronchitis in each season.

Teething rose above the average in the spring; in the summer was considerably below.

It must be clearly kept in mind, to prevent any confusion, that the facts here compared are not the mortalities of any particular disease, but the relation which those mortalities bear to the average mortalities from that disease in the respective seasons of former years. It often happens, in comparing one season with another, that the mortality from a disease diminishes, while its relation to the average of the season may increase. This has been the case with bronchitis, and with several others. It is, however, the increase or decline of the ratio which the mortality bears to the average, that fairly marks the augmenting or diminishing prevalence of the disease and may be taken as a measure of its fluctuations.

On the whole, then, comparing this summer with last spring, we may notice that renal, rheumatic and pulmonary diseases, with diarrhœa, hooping-cough, erysipelas, and death from premature birth have largely increased in prevalence. On the other hand, diseases of the digestive and nervous systems, with teething, small-pox, scarlatina, typhus, and croup, are very much less prevalent.

XV. *Atmospheric Character of the Summer.*

The mean temperature at Greenwich in the thirteen weeks, ending Sept. 27, was 60.2°, which is almost exactly the same as the average of the previous twelve summers, from 1844 to 1855. The early part of July was cold; its last two weeks, with the first two of August very hot, with a dry state of the atmosphere; since that time, cold has preponderated. The quantity of rain was 5 6 inches, which is 1·7 less than the average of the previous twelve summers. There was rain in almost every week of the quarter, but its fall in any quantity was chiefly confined to two weeks, viz., that following the hot weather of July and August, and the last week of the quarter.

XVI. *Relative Mortality of Divisions of the Metropolis.*

The mortality of the entire metropolis was this summer at the rate of 537 to 100,000, but it varied somewhat in the different divisions or groups of districts. The following is the order in which they stand, beginning with those in which the mortality was least:—

North	511
Central	519
West	521
South	553
East	563

These numbers are, of course, approximate, depending on the estimated population of the groups of districts; but as these groups consist of large masses of people, it is probable that the rate of increase is, on the whole, tolerably uniform for each, and that, therefore, the error derived from assuming it so will not be great.

On this assumption it appears that, taking 100,000 in the Northern Districts, and the same number in the Eastern, 52 persons more have died in the latter than in the former, this summer. For the sake of comparison, I will subjoin the order in which the divisions stood in the two previous quarters:—

Winter.		*Spring.*	
North	531	North	519
West	545	East	529
South	556	West	536
Total	560	Total	540
Central	571	South	549
East	596	Central	570

It will be observed that, in each quarter, the northern division has been the most healthy. The Western division has also in each quarter been more healthy than the average of the metropolis. The other three divisions are less constant in their position, the Southern having been among the more healthy in the winter, but taken a lower position in the spring, which it still retains. The Central, less healthy than others in the winter, still less so in the spring, has ascended to the healthy side, and is only exceeded in this respect by the Northern in the summer.

On the other hand, the Eastern division, least healthy in the winter, and rising to be almost the healthiest in the spring, has again resumed its place at the bottom of the list.

These are facts that no hastily-formed hypothesis can explain; they deserve to be well weighed by those having the care of the public health in the respective districts. It is possible that a closer examination of the local prevalence of the chief diseases may throw some light on the laws by which this relative salubrity is regulated; and it may be, that knowing the fact, and gaining some insight into the law, preventive measures might be put into operation that should render the mortality less, and bring those divisions lower in the list to a nearer approximation to the Northern.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING JULY, AUGUST, AND SEPTEMBER.

(Continued from page 442.)

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the "Dreadnought" Seamen's Hospital.

TRACHEOTOMY.

Case 1.—The Westminster: Mr. Hillman.—A woman, aged 39, was admitted, under the care of Dr. Fincham, on account of syphilitic disease of the throat, which had existed for nearly five years. There was extensive ulceration of the pharynx. She was very cachectic, had rapid respiration, a quick pulse, and great difficulty in swallowing. Her symptoms increased in severity, and the third day after admission tracheotomy was performed, she being at the time in articulo mortis, from suffocative dyspnœa. When the tracheal tube was introduced, so much muco-purulent fluid escaped as to suggest to some present that an abscess had been opened. Brandy and ether were administered, and she quickly rallied. On the following day she swallowed easily, and the respiration had become much slower. Mercury was afterwards given, and a steady improvement followed. Six days after the operation the tube was coughed out, and it being found that she could breathe comfortably, it was not replaced. The wound healed quickly, and she left the Hospital quite well.

Case 2.—St. Bartholomew's: Mr. Paget.—A man, aged 66, admitted on account of acute inflammation of the tonsils, and with much œdema of the pharynx and neighbouring parts. Punctures were made with some relief, but, the symptoms

increasing, laryngotomy was performed two hours afterwards. Death on the third day. The autopsy showed purulent œdema round the glottis, and purulent infiltration of the lungs.

Case 3.—Guy's: Mr. Cooper Forster.—A boy, aged 9, was admitted, having, it was believed, swallowed a cherry-stone five days before. His mother stated that, whilst playing with a cherry-stone in his mouth, he had suddenly appeared to be choked, and fell down. Soon after the accident he became better, and could breathe easily, but repeated paroxysms of difficulty of breathing occurred in the evening. He stated that he could feel something moving up and down in his throat. He always reclined on his right side, but preferred to sleep sitting up in bed. Excepting the occasional attacks of dyspnœa, there had been no symptoms whatever, and in the intervals of these he had been perfectly well. His mother had taken him to several Hospitals, but the nature of his symptoms had not been correctly appreciated. Mr. Forster examined the chest carefully, and found equal respiration on the two sides. The boy stated positively that he felt something move up and down, and no doubt was felt as to the stone being in the trachea. A paroxysm occurred in the evening, and, just as it was passing off, tracheotomy was performed. Chloroform was not given. As soon as the trachea was opened a coughing fit occurred, and the stone was ejected into the wound. The wound was now allowed to close, and, excepting a slight attack of erysipelas, everything did well. The wound healed, and he soon afterwards left the Hospital.

Case 4.—St. Mary's: Mr. Gascoyen, House-Surgeon.—A female child, aged 2, was admitted under the following circumstances:—She had been sleeping in a cart upon some bags of sawdust, when one of them came untied, and its contents fell over her, and some into her mouth. She was brought to the Hospital twenty minutes afterwards almost dead from suffocation. The trachea was immediately opened, but after three or four feeble attempts at respiration death took place. At the autopsy a large plug of sawdust was found in the trachea at its bifurcation, almost completely preventing the entrance of air, and the larger bronchi were also nearly filled with it.

Case 5.—St. Bartholomew's: Mr. Stanley.—A woman, aged 44, under care on account of syphilitic disease of the larynx, of two years' duration. Tracheotomy was performed on account of threatening suffocation, and she did well. The wound healed, and she left the Hospital three weeks afterwards.

PUNCTURE OF THE BLADDER.

Case 1.—Guy's: Mr. Cooper Forster.—A man, aged 34, admitted with retention of urine from inflamed stricture. He had been drinking freely. Forcible attempts at catheterism had been made by a Surgeon whom he had seen, and laceration of the urethra, attended with much bleeding, had been caused. The symptoms being urgent, and the instrument on each attempt appearing to pass into the lacerated part, puncture of the bladder by the rectum was determined on. It was performed, and complete relief was obtained. On the fourth day the canula was withdrawn, and on the tenth he left the Hospital quite well, the urethra admitting easily a No. 8 instrument.

Case 2.—St. George's: Mr. Pollock.—A man, aged 26, in good health, was admitted with retention of urine from stricture. The symptoms being urgent and catheterism impracticable, puncture by the rectum was performed. The canula was withdrawn six days afterwards, and he then passed water freely by the natural passage. When for the first time, a month afterwards, a catheter was tried, No. 6 passed easily. Left the Hospital well.

Case 3.—Guy's: Mr. Poland.—A man, aged 60, in good health, was admitted on account of having received a blow on the perinæum, which had been followed by much hæmorrhage and by retention of urine. It being found impracticable to introduce a catheter, puncture of the bladder by the rectum was performed about twenty-four hours after the commencement of the retention. No ill symptoms followed; and on the seventh day a catheter was passed and the canula removed. Recovered well.

AMPUTATION OF THE PENIS.

St. Mary's. Mr. Coulson.—A man, aged 44, admitted on account of epithelial cancer of the glans and prepuce of two years' duration, and said to have followed an injury. There was no history of congenital phymosis. Amputation of the part. Recovered.

OPERATIONS FOR URETHRAL STRICTURE.

Case 1.—St. Bartholomew's: Mr. Paget.—A boy, aged 15, who had been under care in another Hospital on account of stricture and fistula, the result of an injury to the perinæum eight months before. No urine whatever passed by the natural channel, and the injured portion appearing to be wholly obliterated. No instrument could be passed. The operation consisted in cutting down upon the end of the staff, and then dissecting through the cicatrix, and opening into the urethra beyond. A catheter was afterwards introduced and retained for four days. Subsequently it was re-introduced once in every three days. The perineal wound soundly healed, and the strictured tract at the time of the boy's discharge from the Hospital remained quite patent.

Case 2.—St. Bartholomew's: Mr. Stanley.—A man, aged 31, the subject of old stricture, was admitted suffering from the symptoms of low fever. Three days after admission, while straining to make water, the urethra gave way, and the penis became distended, and soon afterwards black. A small swelling could be felt in the perinæum, which was freely cut into; and incisions were also made in the penis itself. The man remained for some time afterwards in a very feeble and sunken condition. Under treatment.

Case 3.—The Metropolitan Free: Mr. Hutchinson.—A man, aged 25, under care on account of stricture and numerous fistulæ, resulting from an injury to the perinæum five years before. He was in miserable health, worn down by the disease, and had been an inmate of several Hospitals. No instrument could be passed for more than three inches and a-half, when it encountered a mass of the hardest induration, which occupied the scrotum and whole perinæum. No urine whatever had been passed by the penis for more than two years. The fistula, through which the greatest quantity passed, was close by the verge of the anus, but five or six others about the pubes, penis, and perinæum existed. Under chloroform, on the operating table, a long and patient trial with a Syme's staff, No. ½, was made, but without success. Subsequently, however, another Surgeon who was present, using some force, succeeded, as it was thought, in getting the instrument into the bladder. The instrument was now freely moveable, and the circumstance that it could not be passed very far in was thought to be accounted for by the anterior position of the commencement of the stricture. A free incision was now made along the raphé of the scrotum and perinæum, and into the large mass of induration which occupied those parts. The urethra having been opened in front of the stricture, it was found that the instrument was bent, and, instead of keeping to the urethra, had passed, in an almost straight direction, towards the rectum. Under these circumstances, the staff was withdrawn, and the operation was completed by cutting freely through the strictured tract, and its surrounding mass of induration, and opening the urethra beyond it. A flexible instrument, No. 10, was now passed. No large quantity of blood had been lost. The catheter got displaced on the seventh day, and, owing to the numerous false passages, etc. by the side of the urethra, it could not be replaced. The man subsequently got to pass his water freely by the natural channel, and the wound is now nearly healed. Under treatment.

Case 4.—St. Mary's: Mr. Lane.—A man, aged 32. His urethra had been opened behind the stricture a month before, on account of retention, it being impracticable to introduce any instrument. For three weeks after this operation, no instrument could be admitted, but gradually the stricture softened down, and a small grooved staff could be got through it. Perineal section was now performed, and a large catheter left in. He left the Hospital about two months afterwards, the wound being all but healed, and a large-sized silver catheter easily admitted.

Case 5.—St. Mary's: Mr. Lane.—A man, aged 49, under care on account of stricture, of some years' duration. During the last eighteen months, a series of abscesses in the perinæum had formed. His health had been very good prior to these abscesses, and still continued fairly so. Under chloroform, a very small staff was got through the stricture, and perineal section was then performed. The man afterwards did well; and, when he left the Hospital, the wound was entirely healed, and a full-sized silver catheter was readily admitted.

Case 6.—St. Mary's: Mr. James Lane.—A man, aged 60,

in broken-down health, had suffered from stricture for many years, and had latterly had abscesses in the perinæum, accompanied with much inflammation and thickening of the adjacent parts. Under chloroform a small staff was introduced, and upon this the stricture was divided. A No. 9 silver catheter was afterwards passed. Several abscesses subsequently formed in the scrotum and perinæum, but he afterwards did well. When discharged, two months afterwards, a No. 9 silver catheter could be passed, and the perineal wound was almost healed.

OPERATION FOR THE CLOSURE OF A URETHRAL FISTULA.

A man, aged 40, under the care of Mr. Coote, in St. Bartholomew's Hospital, an inch and a-half of the urethra anterior to the scrotum having been destroyed by sloughing. The history was very obscure. The great part of the corpus spongiosum appeared to have been destroyed, and the corpora cavernosa were extremely wasted. The closure was effected, in part, by a flap of skin, brought forwards from the scrotum, and in part by flaps of skin from the side of the penis. No catheter was kept in, as the man was subject to fits when it was retained. The edges of the wound sloughed, and the operation failed in toto.

WUTZER'S RADICAL OPERATION FOR HERNIA.

A man, aged 30, under the care of Mr. Coote, in St. Bartholomew's Hospital, on account of a large, oblique, inguinal hernia. The operation of invaginating a piece of integument from the scrotum, and so plugging up the inguinal canal was performed. No bad symptom followed, and the operation thus far is likely to be successful.

ACTUAL CAUTERY FOR FISTULA AFTER LITHOTOMY.

A boy, aged 7, under Mr. Coote's care, in St. Bartholomew's, on account of a small fistula remaining after the operation of lithotomy four years ago. The urine dribbled through the fistula. A wire heated by the galvanic cautery apparatus was twice applied, and perfect closure resulted.

PLASTIC OPERATIONS.

Case 1.—Guy's: Mr. Cooper Forster.—A woman, aged 21 the subject of cleft of the palate, which involved only the soft palate. The usual operation was performed, and all did well for two days. During the third night an attack of vomiting occurred, and two of the stitches were torn out. The union obtained is only to a small extent.

For Hare-lip.—In five cases successful, in a sixth the little patient was the subject also of a most severe cleft palate, and died apparently from inanition three days after the operation. *For Ruptured Perinæum.*—In two cases under the care of Mr. Baker Brown, in St. Mary's, the usual operation was successfully performed. *For Fistula in the Cheek.*—A boy under the care of Mr. Coote, in St. Bartholomew's, on account of a fistula opening into the lachrymal sac, with ulceration around it. The edges were pared, dissected up, and united by sutures. Much benefit resulted. *For Cicatrix after Burn.*—In five cases operations for the decrease of the deformity caused by cicatrices have been performed in all with more or less advantage.

REMOVAL OF CANCEROUS GROWTHS.

Case 1.—Guy's: Mr. Hilton.—A woman, aged 45, under care on account of an epithelial cancerous ulcer in the left cheek which was believed to have commenced from the irritation of a sharp tooth against the lip. It was of six months' duration, and she was in a cachectic state. The excision involved the removal of a triangular portion of the cheek, extending about two inches from the angle of the mouth. The patient was under chloroform, and to prevent bleeding into the mouth, Mr. Hilton adopted the expedient of cutting through the cheek from without, avoiding the mucous membrane, and having tied all the bleeding vessels then divided the latter. Some erysipelas followed but the wound is now healed. *Case* 2.—The Dreadnought: Mr. Tudor.—A man, aged 36, occupied as a stoker and fireman, had an epithelial cancer on the scrotum, about the size of a crown-piece, and of five years growth. It was freely excised, and the wound cicatrised well. *Case* 3.—St. Bartholomew's: Mr. Stanley.—A chimney-sweep, aged 20, had a horny growth from a soot-cancer on the scrotum. The whole was removed by the écraseur. A small abscess followed in the cellular tissue of the thigh, and the wound was long in healing. Recovered. *Case* 4.—St. Bartholomew's: Mr. Stanley.—A man, aged 55. Excision of an epithelial cancer of the lip, of three years' duration. Recovered. *Case* 5.—St. Bartholomew's: Mr. Paget.—A man, aged 56, under care on account of cancer of the lower eyelid. Excision. Recovery. *Case* 6.—St. Bartholomew's: Mr. Paget.—A chimney-sweep, aged 50. Large cancer of the scrotum of two years' duration. Excision. Recovery.

REMOVAL OF NECROSED BONE.

In fourteen cases operations of this class have been performed—in all without any ill results. In one the superior maxilla (from phosphorus) was affected, and the greater portion of it extracted. In several the patients remain under care, and will have to undergo other operations, the entire sequestra not having been removed.

REMOVAL OF MALIGNANT GROWTHS.

Case 1.—University College: Mr. Erichsen.—A woman, aged 56, under care on account of a cancerous ulcer on the forehead and diseased glands under the jaw. Removal both of the glands and the primary disease. Recovery.

Case 2.—St. Bartholomew's: Mr. Coote.—A woman, aged 45, under care on account of an epithelial cancer in the lining of the cheek. The cheek was slit open, and the disease removed. It healed well, but the disease subsequently returned.

EXTIRPATION OF THE EYEBALL.

St. Mary's: Mr. Walton.—A healthy-looking country girl, aged 14, about eight months ago noticed a small tumour just above the inner canthus of the left eye. It caused no pain or inconvenience; but, as it was increasing in size, she applied to a Surgeon, who painted it with iodine, etc. It continued, however, to grow, and the globe was thrust outwards and forwards. When admitted vision was still nearly perfect, but the motions of the globe were interfered with, and she could not quite close the lids. The tumour was elastic to the touch. On cutting into it the appearances characteristic of medullary cancer were exposed, and the removal of the entire contents of the orbit was determined upon. But little hæmorrhage attended the extirpation. The growth after removal was found to be about the size of an egg. It adhered but slightly to the globe, but appeared to have extended through the spheno-maxillary fissure.

OPERATIONS FOR CARIES OF BONE.

Two cases, both the patients being children, have been treated by Mr. Holt, in the Westminster Hospital, on account of carious disease of the os calcis. In each the trephine was used, and some softened bone gouged out. In both, the condition of the parts has greatly improved since the operation, but the cure is not yet complete. A third case is under Mr. Holthouse's care in the same Hospital, in which portions of the astragalus and os calcis have been gouged out, on account of caries.

OPERATION FOR THE CURE OF ENLARGED BURSA IN THE PALM.

A girl, under the care of Mr. Haynes Walton, in St. Mary's Hospital, had a large bursal swelling, extending under the palmar ligament, and in front of the wrist. It had existed for three years, but had latterly much increased, interfering with the motions of the joint, and causing contraction of the fingers. It was freely laid open, and a great number of small fibrinous masses ("melon seed-like bodies") were removed from its cavity. Very little inflammation followed, and the wounds healed well.

REMOVAL OF NON-MALIGNANT GROWTHS.

Case 1.—Guy's: Mr. Callaway.—A girl, aged 16. Excision of an hypertrophied gland, the size of a plum, and of five years' duration, from over the angle of the jaw. Did well. *Case* 2.—The Westminster: Mr. Holt.—A boy, aged 14. Excision of a thick-walled cystic tumour, extending under the border of the free ribs. *Cases* 3, 4, 5, and 6. Removals of sebaceous cysts from various parts. In all the wounds healed well. *Case* 7.—Guy's: Mr. Cock.—A woman, aged 48. Excision of a fibro-plastic tumour from the perinæum, which had existed sixteen months. Well. *Case* 8.—Guy's: Mr. Cock.—A woman, aged 39. Excision of a fibro-plastic tumour from the inner side of the thigh, just above the knee. It had been increasing gradually for five years. The wound healed well. *Case* 9.—St. Bartholomew's: Mr. Stanley.—A

prostitute, aged 25, under care on account of large hypertrophy of the nympha. It was removed by the écraseur without bleeding, and the wound did well. *Case* 10.—University College: Mr. Erichsen.—A lad, aged 16. Removal of a warty mass, the size of two fists, from the verge of the anus. Recovered. *Cases* 11, 12, 13, 14, 15, 16, and 17.—Fatty tumours of considerable size, and some of very large size indeed, removed from different regions of the body. Recovery. *Case* 18.—St. Bartholomew's: Mr. Paget.—A boy, aged 19, under care on account of a large fibrous polypus of the nose. It was found impracticable to remove it by forceps, and a week after the attempt its excision was performed. The nose was slit up, the nasal bones separated, and with strong scissors the base of the growth was cut through. The lad never rallied well, and death from exhaustion took place on the seventh day.

OPERATIONS FOR NÆVUS.

In seven cases, large nævi in different parts have been treated by ligature with success, in two with partial success. In two cases, under the care of Mr. Luke, in the London Hospital, very large nævi are under treatment by setons—in one twenty-five threads were introduced, and in the other seventeen. A woman, aged 21, under the care of Mr. Cock, in Guy's, had a small erectile tumour excised from the integument of the mamma. It had existed two years. The wounds healed well.

REMOVAL OF HORNY GROWTHS.

Case 1.—A man, aged 53, was admitted into Guy's, under the care of Mr. Cock, having a horny growth about an inch long, and resembling a bird's beak, growing from the lower lip. It had existed for seven years. Excision by the V-shaped incision was performed, and the wound quickly healed. It appeared to be of perfectly innocent nature. *Case* 2.—St. Bartholomew's: Mr. Stanley.—A chimney-sweep, aged 20, was admitted on account of a horny growth from the scrotum, nearly two inches long. Its base was epithelial cancer. The whole was crushed off by means of the écraseur. The wound healed slowly (see Removal of "Malignant Growths").

ST. BARTHOLOMEW'S HOSPITAL.

COMPOUND FRACTURE OF THE FOREARM WITH SIMPLE FRACTURE OF THE HUMERUS—AMPUTATION THROUGH THE FOREARM—RECOVERY.

(Under the care of Mr. SKEY.)

The feature of interest in the following case is the occurrence of fracture in two parts of the same limb, and the question which arose as to where the amputation should be performed. In this respect the details of the case, from the pen of Mr. Skey, jun., will explain themselves.

Joseph Tagg, aged 14, was admitted into St. Bartholomew's Hospital on the 13th of October, at 11 o'clock a.m.; his hand, and half the forearm having been wrenched off by machinery, half-an-hour previously. He had been ordered to throw the wheels of a horsehair carding machine into gear, by seizing a leather band while in rapid motion, and adjusting it upon a drive-wheel affixed to the shaft of the machine; a duty requiring much strength and dexterity. The boy's hand had slipped between the leather and the wheel, had been seized between them, and torn off obliquely about three or four inches below the elbow. The humerus also, of the same side had received a comminuted fracture in its upper third. The hæmorrhage was trivial. Mr. Skey arrived at twelve o'clock, and the patient being placed under the influence of Chloroform, he at once amputated the forearm by the circular operation, as near to the injury as the contused and lacerated state of the integuments would admit. His reasons for this proceeding, in preference to amputating above the comminuted fracture, Mr. Skey expressed in a few words, after the operation. In the present case, he said, he might have felt justified in amputating the arm at the line of the fractured humerus, but finding that the injury below the elbow admitted of the saving of sufficient integument to cover the ends of the bones, and that it must be impossible to determine the exact line of fracture in the humerus, owing to its extremely comminuted nature, he determined to do the lesser operation, considering that the double injury of amputated forearm, with fractured humerus, even when combined, would not be so serious as that of amputation of the upper arm above the fracture, possibly extending even to the epiphysis of the bone.

These were the grounds upon which Mr. Skey had chosen his operation:—Five or six vessels were secured by ligatures, but as the stump showed some disposition to bleed, he directed that the wound should not be closed until the evening, when all oozing of blood had ceased. The fractured humerus was now put up in a well padded double splint, jointed with hinges, by means of which, either the upper or lower half of each splint can be removed without disturbing the rest of the limb. At eight o'clock the wound was closed, and secured by three sutures; however, the tendency to bleed continued, and it was found impossible to avoid the enclosure of a small quantity of blood. On the following day, the patient seemed, in a great measure, to have recovered the shock of the accident and operation, having slept several hours in the course of the night. Ordered meat diet.

15th.—Slight puffiness of the stump from pent-up coagulum; face flushed; pulse feeble; appetite small. Mr. Skey ordered the sutures to be removed, and replaced by two small strips of adhesive plaster, and a small light bread poultice to be applied. Under this the wound soon gaped. Ordered—Quinæ disulph., gr. ij. bis die; and the wound to be packed with charpie.

16th.—Pulse stronger; countenance bright; appetite returned; wound covered with healthy, florid granulations. The boy expresses himself as free from pain, and comfortable.

23rd.—Up to this period he has steadily progressed toward recovery, without a bad symptom.

Nov. 6.—The case has done uninterruptedly well, and the stump is fast healing. The fracture of the humerus is also in process of consolidation.

WÜTZER'S OPERATION FOR THE RADICAL CURE OF HERNIA—SUCCESSFUL RESULT.

(Under the care of Mr. COOTE.)

In another part of our reports is a brief mention of a case in which Mr. Holmes Coote has recently adopted the procedure recommended by Professor Wützer of Bonn, for the radical cure of hernia. It being the first in which this operation has been performed in the London Hospitals, a more detailed notice of it may be desired by some of our readers.

Wützer's operation, which has been described by Mr. Spencer Wells in the twenty-seventh volume of the Medico-Chirurgical Transactions, consists in pushing up a conical hollow wooden plug the entire length of the inguinal canal, thus invaginating a fold of skin. Up the cavity of this plug which has a closed blunt end, is then passed a long elastic needle, which piercing a hole in its upper part is also made to penetrate the folds of skin and project externally. This needle serves to retain the plug in place, and is retained. Along the course of the inguinal canal is now laid a concave splint of equal length with the plug, and to a screw projecting from the handle of the latter this splint is fixed in such a manner that it can be made to compress the intervening layers of skin against each other. Beyond the removal of the hair no preparation whatever of the parts is required. The instrument is simply adapted, the patient confined to bed, the degree of pressure modified from day to day, and a careful watch observed. At the end of about eight days the instrument is removed, and the cavity filled with lint, the patient is kept to bed for another week and wears a truss for three months longer, at the end of which time, if successful, the cure is complete. Thus it will be seen that the principle of the procedure is the obliteration of the whole length of the sac by the invagination of a plug of skin, the adhesion between the opposed layers of the involuted sac being produced by continued moderation pressure. The operation has been performed, according to Mr. Wells's paper (1854), 57 times by different Continental Surgeons (Wützer, Sigmond, Rothmund, &c.), and more recently, twelve times by English Surgeons (Burmester 1, Wells 6, Stretton 1, Jones of Jersey 3, Coote 1). In none of these did any bad symptoms follow and in a large majority the cure was complete. Dr. Burmester's patient was quite well six years after the operation, in one of Mr. Wells's six years had elapsed at the time of report, and in another four years, and no return had taken place. But few of the other cases have been watched for sufficient periods to allow of "no relapse" being asserted. It must be stated, that in most of the

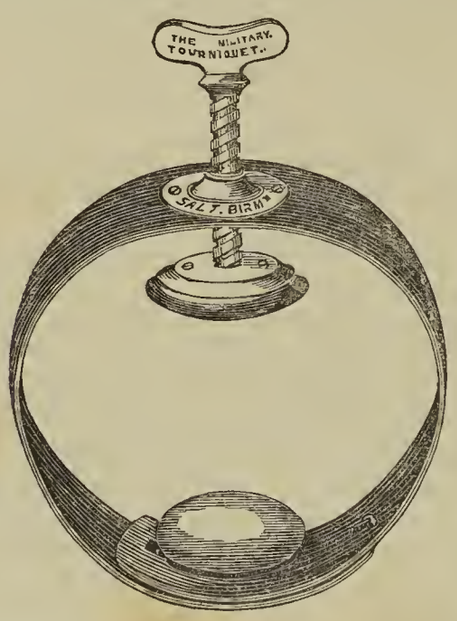
cases which have been detailed, the hernia was not of unusual size, and the worst class appears to have been thought unsuitable. Mr. Wells states that he has heard of a death following the operation at Brussels, but that the patient was in bad health at the time, and the operation unskilfully performed. This is, we believe, the only instance in which even dangerous symptoms have been produced by it.

NEW INSTRUMENT.

NEW TOURNIQUET.

By T. P. SALT, Esq., of Birmingham.

The accompanying drawing represents a new tourniquet. It is well known that the Medical Practitioner is subjected to much annoyance from the straps, buckles, and the adjustment of pads in the tourniqnet in general use, but on the field of battle or in railway accidents, these evils are greatly aggravated. All these difficulties are removed by the military tourniquet, which has the great advantage of allowing firm pressure upon the artery without interference with the venous circulation, as the constriction does not include the whole circumference of the limb. But the military tourniquet differs from others on the same principle in several respects; and these differences render it not only specially adapted for ambulance and field service, but also for the use of hospitals and



practitioners generally; and we understand that this instrument has received the sanction of the Medical Department of the Army, and was supplied to the Hospitals in the East, in the late war.

It consists of an ordinary straight stay-busk, of sufficient length to embrace the largest limb, and, by a series of notches at both extremities, may be so reduced as to fit the smallest. The limb being secured within the circumference of the tourniquet, all that is necessary is to direct the pressure, by means of a screw, upon the artery. The pads are made of box-wood; the busk is covered with a sheathing of india-rubber, and as there are no materials employed capable of absorbing moisture, this instrument is available under all circumstances, and may be applied in one-sixth the time of that in ordinary use.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 144.—Industrial Applications of Castor-oil.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—M. Bouis, a French Chemist, has made some important discoveries respecting castor-oil, especially when it is found that a piece of ground in Algiers will yield three times as much castor-oil as olive-oil, and twice as much as palm-oil; and that his investigations will enable castor-oil to be applied to industrial purposes, to which it was not applicable formerly. By distilling castor-oil upon concentrated potash, the sebacic acid and caprylic alcohol are extracted as separate products, which may be turned to good account. The sebacic acid, having a high melting-point, may be employed instead of stearic acid in the manufacture of candles: and if it be mixed with stearic acid, the hardness and quality of the candles are greatly improved, and in appearance they resemble porcelain. It is possible to use caprylic alcohol in all the purposes to which ordinary alcohol is put, particularly in illumination and in the composition of varnishes, and from it certain compound ethers may be derived, of remarkable odour, similar to those which are at present largely used in commerce.

Bolton, Oct. 31. I am, &c. W. R. C.

No. 145.—Ancient Roman Dentistry.

Sir,—The laws of the twelve tables forbade the burial of gold in sepulchres—"neve aurum addito"—unless the teeth of the corpse happened to be fastened with it, "quoi auro dentes vincti escunt, ast im cum illo sepelire urereve, se fraude esto."—*Cicero de Legibus*, II., 24. I need hardly say that, though from Cicero, the Latin is not Ciceronian, but perhaps some of your readers may be able to tell us something more of the dentistry of the Romans. I am, &c.

Cambridge, November 3. Antiquary.

No. 146.—New Bulb and Salad.

Sir,—I have a garden, and am rather proud of the good my example has done to my agricultural neighbours. But my potatoes have failed, and I hear that a good substitute has been introduced in France, the *Chærophyllum bulbosum*, yielding an abundance of tubers of from half-an ounce to an ounce each, very wholesome and with a delicate vanilla flavour, containing 21 per cent. of starch. The *Chærophyllum sativum* is also said to be an excellent salad. Can any of your French or English readers help me towards a crop? I am, &c.

Nov. 3, 1856. A Village Doctor.

No. 147.—Dysæsthesia Æthiopica.

Sir,—In a work by Mr. Olmsted on the Seaboard Slave States of the Union, a Dr. Cartwright, after describing a form of disease he calls *Drapetomania*, which, "like a malady that cats are liable to, manifests itself by an irrestrainable propensity to run away," alludes to another disease very prevalent among the slave population:—

"Dysæsthesia æthiopica, or hebetude of mind and obtuse sensibility of body. . . . From the careless movements of the individuals affected with this complaint they are apt to do much mischief which appears as if intentional, but is mostly owing to the stupidness of mind and insensibility of the nerves induced by the disease. Thus they break, waste, and destroy everything they handle; abuse horses and cattle; tear, burn, or rend their own clothing, and paying no attention to the rights of property, steal others to replace what they have destroyed. They wander about at night, and keep in a half nodding state by day. They slight their work, cut up corn, cane, cotton, and tobacco, when hoeing it, as if for pure mischief. They raise disturbances with their overseers, and among their fellow-servants, without cause or motive, and seem to be insensible to pain when subjected to punishment. . . . When left to himself, the negro indulges in his natural disposition to idleness and sloth, and does not take exercise enough to expand his lungs and vitalize his blood, but doses out a miserable existence in the midst of filth and uncleanliness, being too indolent and having too little energy of mind to provide for himself proper food and comfortable clothing and lodging. The consequence is, that the blood becomes so highly carbonized and deprived of oxygen, that it not only becomes unfit to stimulate the brain to energy, but unfit to stimulate the nerves of sensation distributed to the body. . . . This is the disease called Dysæsthesia (a Greek term, expressing the dull or obtuse sensation that always attends the complaint). When roused from sloth by the stimulus of hunger he takes anything he can lay his hands on, and tramples on the rights as well as on the properties of others with perfect indifference When driven to labour by the compulsive power of the white man he performs the task assigned to him in a headlong, careless manner, treading down with his feet or cutting with his hoe the plants he is put to cultivate—breaking the tools he works with, and spoil-

ing everything he touches that can be injured by careless handling. Hence the overseers call it '*rascality*,' supposing that the mischief is intentionally done. . . . The term 'rascality,' given to this disease by the overseers, is founded on an erroneous hypothesis, and leads to an incorrect empirical treatment, which seldom or never cures it."

Is this peculiar to negroes? I think I have seen it more than once or twice in London. I am, &c.

Brook-street, Nov. 4, 1856. An Early Riser.

No. 148.—Sydenham Wells.

Sir,—Evelyn writes in his Diary: "September 2, 1675, I came back by a certain medicinal spa waters, at a place called Sydenham Wells, in Lewisham parish, much frequented in summer." I think many of our old mineral springs are neglected, and should be glad to know if this one is near the Crystal Palace, or within reach in an afternoon holiday.

St. Helen's, Nov. 5. I am, &c. A City Surgeon.

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Medical Times & Gazette.

SATURDAY, NOVEMBER 8.

MEDICAL DEPARTMENT OF THE INDIAN ARMY.

A measure is now under consideration by the Indian authorities, not only of the very highest importance to the Medical Officers of the East India Company's Service, but of great public interest; affecting, as it does, the future welfare of the inhabitants of British India.

During the eight years Lord Dalhousie acted as Governor-General of India he conducted three great wars to a successful termination, and annexed four kingdoms to the British Empire. At the close of his eventful administration he became convinced that the Medical Department of the Indian Army stood in need of reform and improvement; and though failing in health, he drew up a Minute, recommending an entire reconstruction of the Department, upon the principles so long and so successfully advocated by Mr. Martin, to whose exertions the Service has been so repeatedly indebted.

The first important reform recommended by Lord Dalhousie is the abolition of the Seniority Boards. It may not be generally known, perhaps, that the Medical Department of the Indian Army has been hitherto governed by a Board constituted of the three oldest members of the Service, and that the next Staff-Officers under the Board of the administrative class have been appointed on the same system of seniority. These are the next ten senior officers, called Superintending Surgeons. All promotion to staff and administrative grades has been exclusively on the seniority principle. It must be quite unnecessary to point out the evils of a system in which Medical Officers have not to look to merit for promotion, but simply to long life; or to show the great good likely to follow a system in which seniority will only have its claim when the senior is equal in point of merit to the junior. Lord Dalhousie proposes to supplant the Seniority Boards by a chief of the Medical Department in each presidency, to become responsible for the government of the department, being assisted by two secretaries, and acting with a staff corresponding to that of the Army and Navy Medical Service. He further proposes that promotion to these and all other offices, hitherto made upon the absolute rule of seniority, should now be made on the rule of selection for merit only by the chief of each presidency.

Another great defect in the present arrangement of the Medical Department of the Indian Army, Lord Dalhousie proposes to remedy. It is the absence of substantive rank, and of brevet rank, with a consequent inequality in honorary distinctions and in promotion with officers of the line. Lord Dalhousie proposes to give substantive rank to the Medical officers, with all its necessary privileges, as quarters, prize money, pensions, and brevet rank.

Thirdly, to meet the want of a sufficient number of Medical officers for the duties of the Army, Lord Dalhousie proposes that a number of supernumerary young officers should be placed on probationary service in the general hospitals at each presidency, to meet emergencies as they arise; these officers having the pay of Assistant-Surgeons on first arrival.

The other improvements are of a pecuniary nature; including an increase of pay for all staff-officers, and an arrangement under which Assistant-Surgeons, after seven years' service when holding charge of regiments, shall have the same allowances as are now granted to full Surgeons.

This Minute of Lord Dalhousie has been approved by the Court of Directors. It now rests with the Board of Control, and is understood to be stopped by purely financial considerations. If carried out, it would lead to an increased expenditure of from £25,000 to £30,000 a-year. Yet this is a paltry sum to impede the settlement of a question affecting the welfare of 900 Medical Officers scattered over an empire of a hundred and fifty millions of British subjects. Such a sum would be thought nothing of, if the expenditure were purely military, civil, or political; but as the Medical Department is concerned, the strictest economy must be observed. How false this economy is, we may easily illustrate by the working of the present system. The splendid barracks built for European troops at Berhampore in Bengal, cost, according to the returns of the Military Board at Calcutta, including capital and interest, £16,891,206. After this money had been wasted they were abandoned. Had the money merely been thrown into the swamp in which the barracks were built the case would have been bad enough, but during the 50 years the buildings were used some 5000 to 6000 men were killed by malaria.

Again, at Secunderabad, in the Madras Presidency, in less than five years, 117 soldiers lost their lives unnecessarily. Taking the cost of these soldiers at the lowest mere money value, and the cost of recruits to replace them, the loss in these five years would be, in one barrack alone, £24,862, or £150,000 for the thirty years the barracks had been used. Yet when some twenty or thirty thousand pounds per annum are wanted to form a good Medical Department, with authority to prevent this enormous loss of money and life, the Court of Directors and Board of Control play at battledore and shuttlecock with the measure advocated by the most able of the Governors-General of India. This could not be if our Profession were efficiently represented in Parliament. Let any measure affecting the Church, the Army and Navy, or the Law, be mooted in either House of Parliament, and at once

some reverend prelate, some one of the 50 or 60 naval and Military officers in the House, or some score of the 160 lawyers, at once rise to assert the rights of their Profession; while we have but two members of our Profession in the House of Commons, and one of them so incapable of weighing evidence as to declare that vaccination is useless. This should be looked to before the next general election. Let those of our brethren who have local political influence be prepared with a candidate who is likely to be as able as he is willing to make the voice of the Profession heard and respected by the Legislature.

THE WEEK.

It will be abundantly evident to any one who looks over the new Medical Reform Bill we published last week, that it will be strenuously opposed by the Universities, and our readers will not be surprised to hear that the heads of all the Scottish Universities have met, and agreed to make the most important changes in their system of graduation. We are not at liberty to publish a precise account of their plans this week, but may say, that they amount to a very considerable advance in the standard of general and professional education, the granting two degrees, M.B. and M.D., and a general adoption of the practice of the Universities of England and Ireland.

The Edinburgh College of Surgeons is "out-Heroding Herod." It offers its Licentiates a non-resident Fellowship for the sum of £25 sterling. These non-resident Fellows are to have the privilege of putting F.R.C.S. Edin. after their names, instead of L.R.C.S. Edin.; but are to have no deliberative voice in the proceedings of the College, nor to be allowed the "privilege" of attending its meetings. The resident Fellows really offer an amazing boon to their provincial brethren! They beat St. Andrews in its most palmy days. Scotch degrees will be looked upon as more valuable than ever. A Fellowship for £25! What next?

A new journal, *La Cremation*, has just appeared in Paris, said to be supported by the Government, devoted to the advocacy of the system of burning instead of burying the dead. It is a very grave question how far the diseases of a low type which have become so prevalent of late years are to be attributed to the pernicious influence of the decomposing bodies of the dead upon the water drunk and the air breathed by the living. Much of this evil influence may be arrested by rigidly prohibiting all intra-mural sepulture; but there can be no doubt that, in a purely sanitary point of view, the ancient practice of burning would be far preferable to burial, even in remote cemeteries. However, it will be a long time before the public mind can be brought to regard the possession of the ashes of their departed relatives in a funeral urn as preferable to leaving the bodies to decompose beneath a handsome tombstone, surrounded by masses of decaying mortality; and our French neighbours' projected *sarcophebus*, with its metallic tablet, instantaneous slide, and concealed furnace, are not likely to be imitated in England. John Bull prefers being poisoned by the vitiated air of his cemeteries and graveyards. He would rather become food for worms than be purified by fire.

The Cholera is said to have reappeared in Scotland, at Polmont, half-way between Glasgow and Edinburgh, on the banks of the Forth and Clyde Canal. It appears to have come to that part of the country, exactly as it did in 1832, by importation from Hamburg. For the particulars of the recent outbreak we are indebted to the *Falkirk Herald*:—

"A sailor, named Mackintosh, belonging to the steamer which plies between Hamburg and Grangemouth, came home to Bow's Plank, near Polmont, on Sunday, the 12th instant, labouring under diarrhœa, with which he and several of the men had been affected during the voyage from Hamburg. On the Thursday following his wife also became similarly affected, and on Friday was seized with the symptoms distinctive of cholera, dying on the Tuesday. The mother of this person attended upon her during her illness, and returned to her own house at Cassel's Bridge, about a mile distant from her daughter's residence. Here, on the day of her daughter's death, she (Mrs. Johnston) was seized with symptoms similar to those of her daughter, but of a milder character, from which she has recovered. On the same evening in this house a young girl was also seized with vomiting, but without being otherwise seriously indisposed. It appears that a Mrs. Baird, living within a few hundred yards of Cassel's Bridge, washed some clothes which had been worn by Mrs. Johnston before she was seriously affected, and also a shift worn by the girl after she was seized with vomiting. Whether by this means she had contracted the same disease it is impossible to say; it is certain, however, that on Friday, the 24th, she was similarly seized, and died in two days, and that her husband was also subsequently seized, and died on Monday last."

In all our Cholera epidemics the first cases have appeared in our ports, and have been directly traceable to Hamburg. Cholera is now prevailing in the neighbourhood of that port; yet the Hamburg steamers are permitted to bring over cargoes of bones and rags, the rags being possibly the remains of clothes worn by cholera patients and polluted by their evacuations. However, in the Polmont case we need not look for any such indirect mode of importation, as some of the crew of the steamer appear to have suffered during the passage from Hamburg to Polmont. A Government which permits the unrestricted importation of pestilence has much to answer for. Unrestricted commerce is a good thing, but it may be purchased too dearly. The safety of the nation is too high a price to pay for it.

The Metropolitan Board of Works has proved itself utterly incapable of mastering the question of Metropolitan sewage. They have recommended Sir B. Hall to accept Mr. Bazalgette's absurd scheme for polluting the Thames below Erith, with the confession, that the flow of sewage, after being discharged into the Thames, might come within a quarter of a mile of the Metropolitan boundary, and that after heavy rains some of the sewage would be carried unavoidably at various outfalls into the river between Vauxhall and Deptford. Are our agricultural treasures to be wasted, our noble river to remain a cesspool, and the public health to be endangered, because the Board of Works and their Engineer are alike unequal to the task before them? It must not be. We feel certain that Sir B. Hall will at once and unequivocally reject this preposterous scheme of Mr. Bazalgette and his supporters.

The Council of the Royal Medical and Chirurgical Society has just come to a resolution which will undoubtedly be very satisfactory to the Fellows. It has been determined to print, every two months, the papers read at the Society, and to transmit this report of the proceedings to all the Fellows. Those gentlemen who prefer to wait for the appearance of their papers in the annual volume of Transactions will only have an abstract published in the Proceedings. It will be observed that the example of the Royal Society is followed very closely in these new regulations.

The last act of the farcical inquiry into the City Gas Works Nuisance was enacted on Tuesday, by the Court of Aldermen. The City Commission of Sewers, which had instigated the inquiry, referred the whole matter back to the Court of Aldermen, under the advice of solicitors, recommending an indictment for a nuisance. The reply of the Court on Tues-

day was, that "it was absurd to suppose that the Court of Aldermen, at the suggestion of the Commissioners of Sewers, would interfere with a company, and call upon them to remove works and property which had cost nearly half a million of money. If the Commissioners of Sewers were advised that they could not indict the Gas Company, let the inhabitants who suffered from the nuisance do it. It was an insult to common sense to suppose that the Court of Aldermen would be guilty of such an act of folly as that of indicting the Gas Company." The whole matter was then ordered to "lie on the table."

REVIEWS.

The Principles of Surgery. By James Syme, F.R.S.E., Professor of Clinical Surgery in the University of Edinburgh. Fourth Edition. London: 1856. 8vo, pp. 486.

Disdaining the volumes which have been published under the title of Surgical Principles, "as no less the parents than the offspring of mediocrity," the modest Professor of Clinical Surgery in the University of Edinburgh now endeavours "to explain the principles which guide my practice and are taught in my lectures." His fourth attempt is not much more successful than his three previous ones. His book is neither a book to read nor a book to refer to. It may serve as a useful text-book to the students of his own class, but will not be a great help either to the busy Practitioner or the scientific Investigator. We believe Mr. Syme to be a far better Surgeon than any one would infer from his book. He has no talent for "word-painting." His style is crabbed and uncouth; neither familiar nor elevated, neither forcible nor elegant. He fails equally, whether he attempts to impart interest to details, or to condense the experience of himself and others into a few epigrammatic sentences. Watson and Latham have not found a rival in their northern Surgical competitor. His work will never be a Surgical classic.

Mr. Syme complains that those who profess to follow his practice often introduce foolish modifications of their own. Here we believe he is right, and accordingly give his own account of the two operations which are best known by his name, dismissing his fourth edition without further criticism.

Amputation at the Ankle.

"When the operation is to be performed, pressure should be made on the tibial arteries, by the fingers of an assistant, or a tourniquet applied above the ankle. The only instruments required are a knife, of which the blade should not exceed four inches in length, and a saw. The foot being held at a right angle to the leg, the point of the knife is introduced immediately below the malleolar projection of the fibula, rather nearer its posterior than anterior edge, and then carried across the bone, slightly inclining backwards, to the inner side of the ankle, where it terminates at the point *exactly opposite* its commencement. The extremities of the incision thus formed are then joined by another passing in front of the joint. The operator next proceeds to detach the flap from the bone, and for this purpose, having placed the fingers of his left hand over the prominence of the *os calcis*, and inserted the point of his thumb between the edges of the plantar incision, guides the knife between the bone and nail of the thumb, taking care to cut parallel with the bone, and to avoid scoring or laceration of the integuments. He then opens the joint in front, carries his knife outwards and downwards on each side of the astragalus, so as to divide the lateral ligaments, and thus completes the disarticulation. Lastly, the knife is carried round the extremities of the tibia and fibula, so as to afford room for applying the saw, by means of which the articular projections are removed, together with the thin connecting slice of bone covered by cartilage. The vessels being then tied, and the edges of the wound stitched together, a piece of wet lint is applied lightly over the stump, without any bandage, so as to avoid risk of undue pressure in the event of the cavity becoming distended with blood, which would be apt to occasion sloughing of the flap. When recovery is completed, the stump has a bulbous form, from the thick cushion of dense textures that cover the heel, and admits readily of being fitted with a boot."—P. 146.

Perineal Section.

"In performing the operation the only instruments required are a short, straight, sharp-pointed bistoury, a grooved director, and a silver catheter; the patient, under the influence of chloroform, if he pleases, being placed with his back upon a bed or table, and his limbs held up so as to expose the perinæum conveniently for the purpose in view, the operator introduces the director, confides it to an assistant, and makes an incision over the stricture about an inch and a quarter in length, exactly in the central line or raphe. This incision should at once extend through the skin, subjacent cellular texture, and fascia, and be afterwards deepened, if necessary, great care being taken to cut precisely in the same plane, and especially to avoid going aside beyond the director. The operator, having felt the instrument distinctly, takes it in his left hand, and guarding the knife on his right fore-finger, inserts its point into the groove, on the bladder-side of the stricture. He then urges the blade through the thickened and indurated urethra, which, from its toughness and yielding disposition, is apt to elude the knife, and last, having withdrawn the director, passes the catheter into the bladder, where it must be secured by proper tapes, and a bandage round the loins. The catheter may be removed on the second day, and if rigors, vomiting, quick pulse, or other feverish symptoms should occur during the subsequent twenty-four hours, they may be safely attributed to a temporary effect on the nervous system."—P. 340.

Human Physiology, Statical and Dynamical; or, the Conditions and Course of the Life of Man. By John William Draper, M.D., LL.D., Professor of Chemistry and Physiology in the University of New York. 8vo. Pp. 649. New York and London. 1856.

Not very remarkable for original thought and experiment this work of Dr. Draper's; but still a good work, and one likely to prove popular and useful. It is, without question, the best treatise on Physiology that has ever reached England from America.

Dr. Draper is evidently a man possessing advanced views on the subject on which he writes:—"Throughout the work, Physiology is treated after the manner known in Natural Philosophy. It was chiefly, indeed, for the sake of aiding in the removal of the mysticism which has pervaded the science, that the author was induced to print this book. Alone of all the great departments of knowledge, Physiology still retains the metaphysical conceptions of the Middle Ages, from which Astronomy and Chemistry have made themselves free. To exorcise it from such nonentities as irritability, plastic power, vital force, is the duty of the rising generation of Physicians. It is also their interest. Empiricism will never be banished from the practice of Medicine until Physiology is made an exact science."

Such are the opening views on which our author rests his after labours. He commences with "Statical Physiology" in his first book, in which book he discusses the subjects of —"conditions of life, food, digestion, calorifacient or intestinal digestion, absorption, the blood and circulation, respiration, animal heat, secretion, excretion, decay and nutrition, the nervous system, the senses, and animal motion." Thence, in Book II. he considers "The principle of organization or plastic power, the influence of physical agents on the organic series, the organic cell, reproduction and development, the growth of man, sleep and death, the influence of physical agents on the aspect and form of man, and on his intellectual qualities, and social mechanics."

The reader will observe in these brief outlines the breadth of the domain of Physiology, as Dr. Draper maps it out. He links it, in a word, with the universe.

Under the head, "Social Mechanics," Dr. Draper includes a curious and interesting chapter on the connexion of structure and habit, connexion of history with Physiology, insect society, *mechanism of registry for instinct, reason, and civilization;* nature of man, and the general facts of European history.

Under these titles, we are regaled with an able argument tending to show that civilization and high mental development are not only coincident with, but dependent on, an absolute physical change in the constitution of men, through modifications in their habits of life equivalent to a true climatic change. There is a very deep and close philosophical argument in the whole of this discourse, though

the ease with which the argument might be followed is sometimes broken by a terrific polysyllable, such as "prognathous," an adjective doubtless of portentous import, but one which we resign with immense relief to those great scholars who know every tongue better than their mother English.

Returning to the purely physiological part of the work before us, we hesitate not to say that it is as simply and ably written as most of our native treatises. The history of the placental circulation is the least definite of all. but in this difficulty the want of perspicuity is not exceptional.

We said, at starting, that Dr. Draper's book had not much pretension to originality. We spoke then of its matter. Its arrangement is certainly original; and in its width of view, and unscrupulous sacrifice of mysticism and of mysterious phrases it stands first of our physiological treatises. Taking it all in all it does credit to the American school, and it has our best wishes for its success.

Ueber den Bau der Schleimpolypen. (On the Structure of Mucous Polypi.) By Dr. Theodor Billroth. With Five Copper-plates. Pp. 36. Berlin 1855.

In this work the author describes the anatomical structure of the growths from the mucous membranes of the nose, the maxillary and frontal sinuses, the larynx, the rectum, the female urethra and the womb; to which growths the term Polypus has been applied. The so-called polypus of the ear is not considered by Dr. Billroth to be a mucous polypus, and is therefore separated anatomically from the other growths. The mucous polypi are to be regarded as formed by a true hypertrophy of the mucous membrane, and it is accordingly found that the same elements which exist in the mucous membrane are likewise found in the mucous polypi. The author regards the structure of these polypi as analogous to that of the corresponding mucous membrane, consisting of connecting tissues with short fibres furnished with glands, and supplied with numerous nuclei, but without elastic fibres. The want of the latter, together with the presence of glands, proves that the polypi are not formed from the submucous cellular tissue. Vessels are found to enter the polypi as well as the mucous membrane, but nerves have been found only once in a nasal polypus by Dr. Billroth. The observations in the text are illustrated by five well-executed copper engravings, containing views of polypi from various mucous surfaces, and exhibiting the microscopic appearances presented by sections of these growths.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON INVERTED TOE-NAIL.

By Dr. BATCHELDER.

Dr. Batchelder strongly recommends the following procedure:—

"Let the deflected portion of nail (which the patient has been in the habit of paring off as much as possible, in order to procure some degree of ease) grow out to be as long as the rest of the nail, or rather to be on a line with the end of the toe—an essential part of the treatment. When this is being accomplished, the patient should wear a loose shoe, *i.e.*, one, the inner sole of which is fully as wide as the foot, and refrain, as much as may be convenient, from standing or walking. When the nail has grown, cut a groove from its root to the end, along the line where the nail begins to deflect, which we will call the angle of incidence. In doing this, great care should be taken not to deepen the groove so as to reach the quick beneath; in fact, not to make the portion of the nail between the quick and the bottom of the reigle so thin as to endanger the splitting of the nail along the groove, for this accident would infallibly stop the process, and compel the surgeon to wait again until the nail had grown out to the required length. This groove effected, the depressed portion should be gently raised and kept up by insinuating, likewise in the gentlest manner possible, a compress about $\frac{1}{4}$ of an inch wide, formed by doubling a piece of thin muslin beneath the edge of the nail, between it and the flesh below. This part of the process shonld be very carefully performed, to prevent splitting up the nail, as well as to avoid unnecessary pain. The compress should be renewed from day to day, and at every renewal be forced a little further up towards the root of the nail, and its thickness also increased by the addition of one or two duplicatures of the cloth. This treatment must be persevered in until the nail is grown out to its full length, when the cure will be complete, and may be relied on as permanent. Having practised upon this plan for nearly 50 years without a single failure, we have no hesitation in making this announcement." The fungous growths sometimes require touching with nitrate of silver, and the parts must be covered with cerate and a light bandage, the patient resting the foot, at all events at first, on a chair and pillow. A shoe as wide as the foot must be worn to prevent relapse. Enlarging the shoe at the *sole*, in this manner, would originally have prevented the disease, and is a most efficacious remedy for corns. *New York Journal*, July, 1856. p. 10.

ON THE SETON IN SEBACEOUS TUMOURS.

By M. MARCHAND.

M. Marchand calls attention to the superiority of the seton to the knife in the treatment of sebaceous tumours. He passes a curved suture needle, carrying a thread, through the tumour. and having pressed out the contents through the holes formed by the needle, he ties the thread as a seton. The tumour when emptied, inflames, and pus is formed and evacuated through the apertures. The thread may be removed in from a week to a fortnight, the suppuration then ceasing, and only slight induration remaining for some days. The size of the thread and duration of the treatment must depend upon the magnitude of the tumour. If less in size than a nut, an ordinary thread will suffice; if larger, but yet less than a pigeon's egg, a double thread will do; while when it is still more voluminous, packthread must be employed, and left in for a fortnight. The pain produced is trifling, and the patient can at once attend to his affairs. There is not much annoyance caused by the subsequent inflammation, as the small quantity of pus formed readily escapes. The cicatrice that results is very small. This mode of treatment is only applicable to tumours, the contents of which are more or less in the fluid state. The sebaceous matter in some old cysts becomes quite solidified, and in such cases the author makes a large puncture with a bistoury or lancet, presses out the contents, and introduces some charpie. — *Moniteur des Hôpitaux*, No. LXXII.

EXCERPTA MINORA.

Popliteal Abscess from Angioleucitis.—M. Chassaignac, while pointing out an example of abscess in the popliteal space due to a traumatic lesion of the tendo-Achillis, explained the anatomical reason of the rarity of the occurrence. There is in fact a very limited region of the foot supplied with lymphatic vessels that proceed to the ham, this being precisely limited to the portion of the skin which corresponds to the tendo-Achillis. The lymphatics beyond this narrow tegumentary zone proceed to the groin.—*Moniteur des Hôp.:* No. XCIV.

Creosote in Dysentery.—In a very wide spread epidemic, Dr. Andree found the aqua creosoti of the Swedish Pharmacopœia (℥i. ad ℥xij. aq. dest.) very useful. A teaspoonful is given to adults every two hours, and a drop for every year to children, It is useful only at an early stage, opium being the remedy at a later. Dr. Hellmann has also found it useful; but some practitioners state that those patients who take the aqua as a prophylactic of their own accord, are oftenest seized with dysentery.—*Schmidt's Jahrb.* XCI, p. 29.

Berberine.—In the "Hygeia," M. Altin gives an account of berberine, prepared from the bark of the root of the wild berberis growing near Stockholm. When after attacks of cholera a mucous colourless diarrhœa continues, and the urinary secretion is not re-established, the berberine remedies these two conditions. It exerts remarkable effects in the different cases of gastricismus, accompanied by disturbed action of the liver, and becoming severe and obstinate under the influence of the epidemic constitution. It is also very useful in ordinary dyspeptic suffering and cardialgia: and the combination with lactate of iron is an excellent one. Chlorosis has yielded to it, in which iron alone either failed, or was not supported.—*Schmidt's Jahrb.* XCI., p. 29.

Guiacum in Sterility.—Dr. Hubbard states that he has in some cases found the volatile tincture of guiacum, a very effectual remedy in cases where the woman had previously suffered from dysmenorrhœa—giving it about 3 weeks prior to the expected menstrual period.—*New York Journal, July.*

PROVINCIAL CORRESPONDENCE.

IRELAND.

[From our Dublin Correspondent.]

DUBLIN, NOVEMBER 4, 1856.

THE Session of 1856-7 at the Richmond, Whitworth, and Hardwicke Hospitals, was opened in the theatre of the first-named Institution, by Mr. Hamilton, on Monday, the 3rd instant, at eleven o'clock. After an eloquent and most useful address to the students, in the course of which he pointed out the true method of turning to advantage the vast opportunities for acquiring knowledge presented by these Hospitals, containing in the aggregate 312 beds, appropriated respectively to Surgical cases, to chronic and to acute diseases, Mr. Hamilton exhibited a number of plates to demonstrate the mode in which the student might render available the valuable collection of preparations, casts, and drawings, no fewer than four thousand in number, contained in the splendid museum of the Hospital, so admirably arranged and classified by Professor R. W. Smith. The lecturer next proceeded to observe that the Hardwicke and Whitworth Hospitals were built for the purpose to which they were applied, and more suitable buildings it would be difficult to find. Such was not the case with the Richmond Surgical Hospital, which, though an old building, had by various improvements and attention to ventilation and cleanliness been rendered most healthy. Mr. Hamilton brought forward many striking examples of the evil effects of over-crowding, inattention to cleanliness and want of proper ventilation, and pointed out the difficulties the Medical Officer has often to contend with in enforcing attention to these points, when he is under the control of Poor Law Guardians, or other persons who may not properly appreciate their importance. Mr. Hamilton in conclusion alluded to the different position in which these hospitals are now placed from that which they formerly held. Some time ago they were threatened with annihilation, Now they are safe in the enjoyment of the income secured to them through the wisdom and liberality of Parliament. A well-merited recognition was made of the zeal and indefatigable labours of those citizens through whose exertions this desirable result had been attained, and the favourable verdict elicited from the Select Committee of the House of Commons, that "these Hospitals ought to be maintained in their present state of efficiency." Above all, a tribute was paid to the wisdom and decision of Lord Clarendon, who, when the Whitworth Chronic Hospital was closed, during his Vice-royalty, in consequence of the Report of the Committee on Miscellaneous Estimates, "visited the Institution, and was so struck with the inexpediency of shutting up such an establishment, that, on his own responsibility, he ordered it to be opened within three weeks from its being closed." Lastly, Mr. Hamilton eulogized the admirable selection by Lord Carlisle of the Board of Superintendence under whom the Hospitals are now placed, and read out the names of the members, as a sufficient guarantee that any reasonable suggestion for the efficient maintenance and increased utility of these institutions would be favourably received and acted on. A most gratifying occurrence attending the reading of the list, was the very marked and long-continued applause with which the name of Sir Philip Crampton was received.

On the same day, at three o'clock, Dr. Lyons, in a very eloquent address, inaugurated the second Session of the Medical Faculty of the Catholic University, in the presence of a large assemblage, among whom were the Roman Catholic Archbishop; the Very Rev. Dr. Newman, Rector of the University; the Lord Chief Baron; Sir Henry Marsh, Bart.; Sir James Murray; Sir Arthur Clarke. M.D.; the Governor and Deputy-Governor of the Apothecaries' Hall; Professor Harrison; Dr. Montgomery; Dr. Churchill; the Professors of the University; a large number of the Roman Catholic Clergy, etc. Having referred to the interchange of relations which the University has effected with the older bodies presiding over Medical and Surgical education, which, he observed, "in more than one instance has been accorded with no ungraceful or unfriendly spirit," the learned Professor proceeded to take a brief retrospective glance at the history of intellectual development in Ireland; and from a comparative statistical review of the extent of secondary or superior education, in several countries, as tested by University graduation, collated with an examination of the full and able compilations of the Census Commissioners for 1851, arrived at the inferences—"First, that the present position of superior education in Ireland is wholly and entirely inadequate to the wants of the country; and secondly, that a vast proportion of the readily available intellectual wealth of this country is yet unexplored and unemployed.

"We are now," observed Professor Lyons, in conclusion, "in a position to take a large, comprehensive and, if you will allow me the expression, somewhat of a statesmanlike view of the great question of secondary or superior education in Ireland. We are in a position to form an estimate of the magnitude and importance of the interests which it embraces, and of the vast operations by which it is to be brought within the reach of the great sections of the community, which its influences are to guide, to animate, and to enlighten.

"We have seen, upon proofs that cannot be gainsayed, that for by far the greater portion of the intellectual population of the country this great work is yet scarce begun.

"I make no invidious comparisons, and I specify no particular systems or institutions. I do not allude to any one more than another; but I say, and I believe it cannot be gainsayed, that of the educational institutions hitherto established in Ireland, not one has commanded a wide and popular support.—Why or wherefore I do not here inquire; but certain it is, that the *alma mater* of the great body of the Irish youth of university rank and status has yet to prove its claims, assert its place, and, by the number of its college rolls, show that it fulfils the aim and scope of an effective, popular, and national university.

"Such is the position of educational interests in Ireland at the period at which the Catholic University presents itself upon the stage. Superior education, as we have seen, now reaches the inadequate proportion of but 1 in every 20,000 of the population; while it can be shown that available youth and intellect exist uncultivated and unemployed, capable of raising this proportion at least tenfold. Of the great *rôle* which lies before our University I believe no question can now be raised, however we may ourselves be startled at the magnitude of the vast educational operations in which we are called to take a part. Before us lies a work which is to be compassed by no ephemeral zeal, and by no evanescent results of genius, however brilliant. Life-long labours and the enduring efforts of great intellects, prolonged through more than one generation, will be requisite ere this fabric can be raised to proportions at all commensurate with the vast ends it has to accomplish. Yet, guided by the example of the old Catholic times, which has handed down to us some of the noblest of existing institutions, still firm in their massive proportions, let us not hasten or precipitate aught in our work. Let us ever bear in mind that we build not for the ephemeral purposes of to-day, but for such as end with the intellectual existence of our race and of our kind."

I have given these sentences *verbatim*, as delivered, in preference to attempting myself to make an abstract of Dr. Lyons's observations, because I dissent from the inferences he has drawn, and think it would be easy to show that the statistics he has brought forward in reference to University Graduation, are by no means so unfavourable to Ireland as might, at first sight, appear to be the case.

The Council of the Apothecaries' Hall have announced as the subject of their next Annual Prize, to be awarded in May 1857, "the Vegetable Poisons, including the Botany and Natural History of the plants from which they are derived: their officinal preparations, physiological action, poisonous effects, and chemical constitution; together with the remedial treatment of the symptoms produced by them, and the means of detecting them in a simple and combined condition." The subject has evidently been suggested by recent events, and it is probably judicious to select one to which these events have attached a more than ordinary importance. The Council has also announced that arithmetic has been added to the subjects of the preliminary examination. This, it appears to me, is a great improvement in the course, and one, of the necessity of which there could be no doubt, as a competent knowledge of the rules of arithmetic, and of the method of working decimal fractions, is indispensable to the analytical chemist, and is even necessary to the satisfactory perusal of the most elementary works on Chemistry. It is strange that examining boards should so long have been content with requiring proof

of a moderate knowledge of Greek and Latin, while they altogether neglected to ascertain whether the candidates who came before them were reasonably acquainted with the most important branches of an English education. They seem to have taken this for granted. I am happy to observe, that in the University of Dublin, all candidates for entrance are now examined in English Composition and Arithmetic. Indeed the vast improvements which have been effected in the course of education, in this University, within the last three or four-and-twenty years, indicate the most enlightened and liberal views on the part of those to whom its government is entrusted, and are quite in keeping with the progressive character of the present age.

Next week I shall send you a short abstract of Dr. Neligan's address at the opening of the Dublin School of Medicine, Peter-street, delivered at twelve o'clock to-day, and also an account of the first meeting for the season of the Association of the Members of the College of Physicians, which will be held to-morrow evening.

GENERAL CORRESPONDENCE.

MORTALITY AFTER CHLOROFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read, with much surprise, in your last two numbers an essay by Dr. Arnott, the object of which is to prove—1. That the mortality after operations in London Hospitals is considerably greater now than it was before the introduction of chloroform; and, 2. That this increase is the effect of the administration of that anæsthetic. Allow me to say a few words on both these points:—1. The figures adduced by Dr. Arnott show (if their correctness be assumed), not that the deaths after amputation have been more numerous in London generally since than before the introduction of chloroform, but that the average of deaths in all the London Hospitals taken promiscuously for the last three years has been higher than it was in four series of cases taken before that time. Your readers will observe that the last three years do not comprise the whole of the time since the introduction of chloroform. I can testify, from personal observation and tables drawn out at the time, that the mortality after amputation has been much greater at my own Hospital (St. George's) during those three years than in the previous year, 1852, so that there is nothing to show that the average of those three years is a fair measure of the proportion of deaths during the eight years in which chloroform has been used. Nor is there any better proof that Dr. Arnott's first table represents accurately the rate of mortality in all the London Hospitals before that time. It consists of four series, one of them that published in South's Chelius, and comprising the results of Mr. South's own practice at St. Thomas's; two out of the other three from University College Hospital, and consisting, as Dr. Arnott intimates, almost exclusively of cases operated on by Mr. Liston; the fourth, a very short series from St. Bartholomew's. I believe, therefore, that this table does not accurately represent the ordinary rates of mortality, and that the facts on which Dr. Arnott bases his conclusion are erroneous. Still less conclusive are the remarks which Dr. Arnott makes on the operation of lithotomy. It is quite sufficient to reply to this part of his paper, that the increased mortality after lithotomy in the adult in the present day is due to the number of the more promising cases subtracted by the invention of lithotrity; and I may, perhaps, be allowed to express my surprise, that any one writing on this subject should have passed over so obvious a consideration. I believe the mortality after lithotomy now is not by any means greater in the class of cases operated on than it was in old times; nor do the figures adduced by Dr. Arnott in the least degree shake that conviction.

2. But if we could admit the facts, should we, therefore, be bound to accept the inferences? I think not, until they are more intelligibly connected together; for at present I am unable to discover in the whole essay any argument which applies directly to the thing which is to be proved. The following sentence embodies the gist of Dr. Arnott's reasoning. Speaking of the prevalence of pyæmia to which the increased mortality after amputation of late years is due, he says, "An epidemic caused by atmospherical or other similar influences does not last for many years over the whole extent of a country; but this epidemic has been co-existent with, and has, doubtless, sprung from, chloroform." The assertion that this epidemic has coincided, either in duration or extent, with the administration of chloroform, is, as far as I know, utterly gratuitous. In the Hospital to which I am Registrar it commenced in 1853, and this was the case also, I believe, at other London Hospitals. You will see by reference to the Tables of Amputations and Compound Fractures which I publish in your Journal from time to time, that the difference between those two years was most marked in both classes of cases; although chloroform was given uniformly in the first and not in the latter; and by reference to our post-mortem records for the same two years I find that (exclusive of those two classes of cases) there were, in 1852, 4 fatal cases of pyæmia, in 1853 14, in only one of which chloroform had been given. So that in St. George's Hospital, at any rate, the epidemic attacked equally those who had and who had not been submitted to the influence of chloroform. In fact, the epidemic of pyæmia showed the greatest analogy to those of erysipelas, phagedæna, etc., to which our London Hospitals have been liable from time to time, as far as we know ever since their foundation. The assertion, therefore, that the increased mortality of the last three years (which, as my tables show, was owing exclusively to pyæmia) had anything to do with the administration of chloroform, is so gross a misstatement, that it would not be dangerous did it not rest on authority so respectable as Dr. Arnott's. I would remark on many other parts of this paper—such as the curiously prejudiced comparison between operations in the Crimea and some in the practice of an Army-Surgeon in India—under circumstances respectively which had nothing in common; but I abstain from a fear of overburdening your space. Allow me, in conclusion, to say, that so far from decrying the anæsthetic agent which it is the object of Dr. Arnott's essay to recommend, I have frequently used it with success, and always borne willing testimony to its great value in minor operations (in the late unfortunate case at St. Thomas's, for instance, its employment would very likely have been quite effectual); but I cannot conceive that any unprejudiced person would, for a moment, advocate its use as a substitute for chloroform in those involving deep tissues or requiring much time for their performance. I am, &c. T. Holmes.

4, Vigo-street, Nov. 4, 1856.

ELASTIC LIGATURES.

[To the Editor of the Medical Times and Gazette.]

Sir,—Being convinced of the superiority of elastic over inelastic ligatures for the purpose of strangulating or obliterating vascular tumours, hæmorrhoids, polypi, syphilitic warts, etc., I am induced to submit the method of their application for the consideration of your readers.

An elastic thread being stretched to its fullest extent, is tied in a single knot, slipped over the body of the tumour, and then securely fixed by a double knot. By its own elasticity it contracts again as quickly as possible, and what was, on its application, a large noose, is thus reduced to the smallest possible size. Strangulation follows, of course, and the tumour dies and falls off in a few days.

By this method a great deal of pain is saved to the patient, the use of the knife is frequently avoided, and even the fashionable écraseur itself is, to a great extent, superseded. Fistulæ in ano may be treated in a similar way, the thread being allowed to cut its own way through the sphincter.

I am, &c.

November 3, 1856. F. A. Nesbitt, M.R.C.S.

POOR-LAW MEDICAL REFORM ASSOCIATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the intended application to Parliament, by the Poor-law Medical Officers next Session; I believe their position may be materially strengthened by comparing the payments now made in Unions, with the average cost of patients in Dispensaries; I shall therefore feel obliged, by Professional men connected with these Institutions sending me a copy of the last-printed Reports, or an extract of the particulars of the expenditure; and the number annually under treatment. I shall also be glad if Surgeons connected with Gaols throughout the Kingdom, will send me an account of the amount of their

salaries, and the number of cases of illness they annually attend in these establishments, which will be a further means of showing the members of Parliament the gross injustice the Union Medical Officers labour under. The sympathy of some M.P.s might perchance be enlisted by a faithful account being shown them, of the number of Medical men, their wives, widows, and orphans, who are annually compelled to seek relief of the various benevolent Institutions of the country. The secretaries or treasurers of these charities, will therefore confer a favour by sending me a list of the number of each class annually relieved, and the amount expended on their behalf. From those Poor-law Medical Officers who have not already sent me their replies to the questions I forwarded October 11, I must beg they will do so without further delay, as it is most important to have numbers to be enabled to form a fair average.

Those already received I have arranged under forty-six heads; and when all are collected a summary of most valuable information will be obtained, which, when laid before Parliament, must tend to convince its members that we are not pleading for reform without having great need for it. The accompanying letter from the Right Hon. Sir John Trollope, Bart., will show that we have a friend in him; and I have every reason to believe, from the numerous letters I have received from Surgeons who have had conversations with their respective members, that the majority are in our favour, but require us to prove our claims for redress are just and reasonable, before they can legislate for us. I must request those gentlemen who have volunteered to act as Local Secretaries to collect the Quarterly Subscriptions; and I trust those Union Officers who have not already subscribed will no longer hesitate to do so, as a contest of this kind cannot be maintained with vigour without ample funds.—I am, &c.

12, Royal Terrace, Weymouth, November 1, 1856. RICHARD GRIFFIN.

"Casewick, near Stamford,
"16th October, 1856.

"Sir,—I have had the honour to receive your note and the enclosed paper, which shows that you are still organizing your resources for the ensuing Parliamentary campaign; and I beg to assure you and the Profession, that I shall be ready to assist in any reasonable and fair demands.

"I am, Sir,
"Your very obedient servant,
"JOHN TROLLOPE.

"R. Griffin, Esq."

Officers from the following Unions have joined the Association since the last Report was published:—Skipton, West Firle, Bishops Stortford, Camelford, Petworth, Iregaron, Chelmsford, Wrexham, Walsingham.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, NOVEMBER 4.

Mr. ARNOTT, President, in the chair.

Dr. Andrew Clarke read, on behalf of Mr. Adams and himself, a report on Mr. Price's specimen of

COLLOID CANCER OF THE BREAST.

The report described minutely the microscopic appearances observed. The conclusion arrived at was that the tumour consisted of mixed true colloid and medullary cancer.

Mr. Adams observed, respecting the rarity of colloid disease of the breast; that this was only the third specimen that had been brought before the Society. One of them had been exhibited by himself, and the patient from whom it had been removed had then undergone five successive operations. It might be of interest to mention that she was now about to submit, for a fifth time, to an excision of the recurred growth.

Mr. Spencer Wells presented a specimen of

FRACTURE OF THE OS CALCIS.

The patient had fallen over a wall between twenty and thirty feet in height. Great swelling came on, followed by suppuration, and separation of a large portion of the superior and anterior part of the os calcis, but the patient recovered a useful limb in time. Mr. Wells stated that, although fracture of the os calcis by muscular action was well known, and described in most Surgical works, yet the fracture by crushing he now described had been almost overlooked by all British authors, even the most recent. It was first described by Malgaigne in 1843, and Mr. Wells said he was sure that it was not unfrequently met with, and not recognized because not known. The characteristic deformity was widening of the os calcis and sinking of the vault of the foot, the heel being lengthened behind, as might be found by measuring with a tape behind from one malleolus to the other, or from the heel to the great toe. Crepitation is obscure, but may be discovered by torsion or lateral movement of the os calcis. The patient complains of acute pain, is unable to walk, and there is great swelling, which attracts attention to the inner malleolus. But the swelling is soft and compressible over the malleolus, and on the dorsum of the foot, and beneath the malleolus there is a hard osseous projection formed by the os calcis. As to treatment, rest and good position were all that was necessary at first; afterwards the starched bandage; but consolidation went on slowly. The patients were a long time recovering the use of the limb, and the heel required to be raised by a high-heeled boot.

Mr. Spencer Wells also presented two specimens of

NECROSIS AFTER FROSTBITE,

in illustration of the results of two opposed systems of practice. The doctrine of non-interference in cases of mortification after frostbite, was carried to an extreme in the Crimea and the Eastern Hospitals; and with good reason, if it became necessary to divide living soft parts in order to remove dead bone. But occasionally the phalanges of fingers and toes are seen dead and projecting, giving rise to fetid discharge, and great trouble in dressing. In such cases, Mr. Wells contended that much time was saved by removing the dead portion of bone, if this could be done without injury to the soft parts. The specimens he presented were portions of the great toes of two men, one which he had removed by the bone-nippers, and one which had separated spontaneously. There was but little difference in the amount of bone lost; but in the case removed, the man was serving with his regiment many weeks before his comrade had left the Hospital. Mr. Wells said this result accorded with other cases he had seen, and that after spontaneous separation he had been begged by men to amputate their fingers or toes, as they suffered so much from the thin tender cicatrix.

Dr. Wilks showed a specimen of

CURED ANEURISM OF THE HEART.

This was taken from a patient of Dr. Wilks, who died in Guy's Hospital from phthisis. The man was 52 years of age, and gave no other history of himself, except that relating to his recent pulmonary symptoms. There was nothing remarkable observed about the action or sounds of the heart. After death the lungs were found disorganized, and there was tubercular ulceration of the ileum. Upon proceeding to remove the heart, it was found firmly adherent by the apex to the diaphragm, and by the lower part of the anterior surface to the pericardial sac. When taken out, a hard bony tumour, the size of a pigeon's egg, was found attached to the apex, and in close union with the tissue of the heart itself. Upon incision, it was found to be composed of a thin, but extremely hard, bony case, and the interior was filled with fibrin, of a light and transparent appearance, except at the lower part, where it was slightly coloured by hæmatine. Upon removing the fibrin, an oval opening, a quarter of an inch long, was seen at the bottom of the sac, and passing directly into the left ventricle. This opening was perfectly smooth, and covered by a dense serous membrane, which was continuous with the endocardium on one side, and the lining of the bony cyst on the other. This appeared, then, to be a case of true aneurism of the heart, in which a perfect cure had taken place, and the patient had died of another disease, probably many years afterwards.

Dr. Wilks also brought before the Society a case of

BONY GROWTH ON THE HEART.

This was an old specimen belonging to Guy's museum, which had been bought from the late Joshua Brooke's collection, and which Dr. Wilks exhibited to the Society in order to gather any suggestions as to what might be its probable nature. It was described in the catalogue as an osteo-chondromatous

tumour of the heart, and no further particulars given. The specimen consisted of an adult healthy heart, having upon its anterior and right side a large tumour, the size of the closed fist. This consisted of a membranous sac, having within a network of bony rods, or spiculæ, running in all directions throughout it, the latter being composed of true osseous tissue. It had no communication with the heart or coronary vessels, and was either the bony skeleton of a new growth, or was a congenital tumour, that is, the remains of an included ovum attached to the heart.

Dr. Ogier Ward showed a specimen of

IMPERFORATE ŒSOPHAGUS.

The child had lived eleven days, and had died of inanition. It was the subject of cyanosis. No food had been swallowed, and an attempt to pass a probang had failed. The specimen showed the pharynx ending in a *cul de sac*, and the uppermost inch of the œsophagus was an impervious cord. Both foramen ovale and ductus arteriosus were open.

Dr. Hyde Salter showed a preparation of

DISEASED HEART.

The patient, a girl, aged 10, had died of dropsy, and other symptoms of heart-disease. The sounds during life had been a soft rub heard over the middle of the organ, and at a later period of the illness, a mitral regurgitant murmur. The specimen showed flakes of lymph adhering to the visceral pericardium, which accounted for the friction-sound, and disease of the semilunar, tricuspid, and mitral valves. The mitral orifice was greatly contracted. The feature of interest in the case was that the child had never, as far as the history could be obtained, had anything like rheumatic fever. A cold was stated to have been the commencement of her illness, and it was clear that there had never been any noticeable articular inflammation.

Dr. Buchanan showed a specimen of

CYST IN THE BELLY OF THE GASTROCNEMIUS.

The cyst had contained about ten ounces of a dark, viscid fluid. It had hollowed out the entire belly of the muscle, and only here and there in its wall could traces of muscular structure be discovered. It was lined by a distinct membrane, and its contents appeared to be altered blood.

(To be concluded next week.)

MEDICAL SOCIETY OF LONDON.

Saturday, Nov. 1, 1856.

Dr. Chowne, President, in the Chair.

A Special General Meeting was held, to take certain rules into consideration. After much useless discussion, and some person altercation, it was agreed to refer the rules to the Council.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the Meeting of the Court of Examiners on the 24th ult. :—

Bennet, Robert, Chapel-en-le-Frith, Derby.
Harris, Edward, H.E.I.Co's Service.
Hart, Ernest Abraham, St. Mary's Hospital.
Jones, Thomas, Abridge, Essex.
Morehead, John, Dublin.
Mudd, William, Hadleigh, Suffolk.
Taylor, William Crawford, Dublin.
Watson, Charles John, Ipswich.

The following gentlemen were admitted at a Special Meeting of the Court on the 30th ult. :—

Hanson, Dennis, H.E.I.Co's Service, Madras.
James, Moses Prosser, London.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of Medicine, and received certificates to practise, October 30th, 1856 :—

Harris, Horsley Poulett, Clifton.
Owen, Francis, Clapton, Hungerford, Berks.
Rolston, George Theodotus, Devonport.
Seward, Charles, Weston, Petersfield, Hants.

DEATHS.

Mack.—June 24, at Nunawading, near Melbourne, aged 36, Mr. Richard John Mack, Surgeon, late of Tunstead, Norfolk.

Wilks.—June 12, in Australia, of inflammation of the lungs, Edward Wilks, Esq., Surgeon, fifth son of the late Thomas Prescott Wilks, Esq., Surgeon, of Charing, Kent.

APPOINTMENTS.

Dr. Burns has been appointed Medical Officer of the New Prison at Chatham.

Chichester Infirmary.—At a General Meeting of Governors, held on the 30th ult., Mr. E. H. May was elected House-Surgeon, vice Mr. H. C. Holman, resigned.

BEQUEST.

Norfolk and Norwich Hospital. — Mr. Thomas Reynolds, of Lammas, has bequeathed £100 to this institution.

The Swiney Lectures on Geology in connection with the British Museum are to be delivered at the London Institution, by Professor Grant of University College, commencing on the 13th inst., at 7 o'clock.

Royal London Ophthalmic Hospital.—The contest for the Assistant-Surgeoncy to the Ophthalmic Hospital continues with great energy. Having been late in the field, and finding the votes already, by premature canvassing, to a large extent pre-engaged, Mr. Hutchinson has withdrawn from the list of Candidates. Messrs. Gamgee, Hulke, Streatfeild, and Tyrrell, are now the remaining competitors.

Opening of the Extra-Academical School of Medicine, Edinburgh.—The opening of the session of the Extra-Academical School of Medicine took place on Tuesday, when an address to the students was read by Dr. W. T. Gairdner. The lecture-room at Surgeons' Hall was crowded with students, and a good many members of the Medical Profession and others were also present. Dr. Gairdner treated on Medical education in an address which occupied nearly an hour in delivery, and was listened to with marked attention.

Warneford Hospital, Leamington.—An additional wing is about to be erected at this establishment.

The Will of Samuel M'Guffy, M.D., of Constantinople, has been sworn under £14,000.

Medical J.P.—Thomas Mather Ashton, Esquire, M.D., Ormskirk, on the 31st instant took the oaths, and qualified as Justice of the Peace for the county of Lancaster.

The Royal Sea-Bathing Infirmary, Margate, will soon close its doors for the season, the funds not admitting of its being kept open all the year round. The hon. secretary says : "It is a hard task, from the 1st of January to the 31st of December in every year, to get the funds to keep it open during the summer months."

An Instalment of Justice.—At the Crimean Banquet at Edinburgh on Friday last, the toast was proposed of "The Chaplains and Surgeons employed in the late war." Professors Miller, Aytoun, Christison, and Simpson, were among those present.

Earthquake in South Australia.—A shock of an earthquake was distinctly felt in and around Adelaide at about a quarter past two o'clock on Wednesday morning, the 25th of June. It was accompanied by a loud rumbling sound, which lasted for several seconds and gave the idea of thunder underground. It seems to have extended over a wide range.

Claims of New South Wales.—The important work of "numbering the people" has been completed. The grand total is much smaller than the result was generally expected to exhibit. The aggregate of the population is set down at 268,737 persons, of which number 2542 are "unclassified," being on shipboard, or in other respects undenizened. The census returns taken on the 1st March, 1851, gave a general total of 187,243, so that the population has increased during the last five years by 81,494 persons.

THE BELFAST CLINICO-PATHOLOGICAL SOCIETY.—The fourth session of this important local professional Society commenced on the 24th ult., under the Presidentship of Dr. M'Gee, who ably filled the chair upon the occasion. The attendance of members was large and influential. The President read an address, which was listened to with marked attention throughout. He referred to the important vocation of the physician, his duties and responsibilities, and made special allusion to the very serious loss which the Society had sustained by the recent premature death of the late much and generally-lamented Dr. Malcolm. An exceedingly interesting paper was then read by Surgeon Browne, R.N., having been contributed by Dr. Neligan.

BRONZED SKIN AND PITYRIASIS.—At a recent meeting of the Medico-Chirurgical Society of Edinburgh, Dr. Gardiner, in the course of some observations on bronzing of the skin, remarked that it was possible that mistakes might occur from cases of pityriasis versicolor being mistaken for Dr. Addison's disease. The distinctive characters of pityriasis were its distribution in distinct, more or less circular patches, chiefly over the breast, shoulders, and back; its being attended with increased, though not greatly increased, desquamation of the cuticle; and, lastly, the presence of a microscopic fungus, somewhat similar in structure to the parasite of tinea favosa, and to other simple mycodermatous growths. The last character had been discovered by Eichstedt. Dr. Gardiner then exhibited a demonstration of the fungus. It consisted of very numerous circular sporules, infiltrated through the epidermic scales, and especially clustered in great numbers in the neighbourhood of the orifices of the sweat glands, in some instances connected with tubular processes, which, however, were difficult to follow out, incorporated as they were, to appearance, with the substance of the epidermis. To the experienced eye, Dr. Gardiner observed, there was little difficulty in ascertaining the existence of this fungus, which in a doubtful case might probably prove the best test of the disease now under observation, as contrasted with other kinds of discoloration, and particularly with that connected by Dr. Addison's observations with disease of the supra-renal capsules.—*Dublin Hospital Gazette.*

MORTALITY NOTABILIA.—The returns of the London districts are still of a very favourable character. In the week that ended on Saturday the number of deaths registered was 969. In the corresponding weeks of the last ten years (1846-55) the average number was 1009; and the same rate of mortality would produce in the increased population of the present time 1110 deaths. The improved state of health now existing has therefore reduced the number of last week's return by 141; and similar results have been obtained during the month now terminated. The temperature always exceeded the average temperature of each week of the past month by 20°.

Diseases of the zymotic class were fatal to 175 persons; affections of the respiratory organs, exclusive of phthisis and hooping-cough, to 190. Under the average rate of mortality from zymotic diseases in former years, the deaths last week would have been 295.

BIRTHS.—The births of 777 boys and 792 girls, 1569 children, were registered; average 1445.

METEOROLOGY.—The mean height of the barometer in the week was 30·165 in. The mean daily reading was above 30 in. throughout the week; on Sunday in was 30·291 in., and on that day the instrument rose to 30·33 in., the highest reading in the week. It deserves to be remarked that the mean daily reading of the barometer has been 30in. or more since the 15th of October. The mean temperature was last week 44·7°, which is 2·4° below the average of the same week in 38 years. The mean daily temperature was below the average on the first four days, and on Tuesday and Wednesday was 7° and 9° below it. On Friday it was 6° above the average. The *highest* temperature occurred on Thursday and Friday, and was 56·7°; the *lowest* was 31·4°, and occurred on Wednesday: the range of the week was therefore 25·3°. The mean-dew point temperature was 43·6°, and the difference between this and the mean temperature of the air was 1·1°. The mean temperature of the water of the Thames was 51·2°. The air was unusually calm. The greatest pressure of the wind was 1 lb. to the square foot, by Osler's anemometer, on Thursday. Rain fell on Friday to the amount of 0·34 in. Horizontal movement of air, 245 miles; electricity positive, with weak tension.

THE following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	2	..	5	5	6	4
North	490,396	2	7	11	3	3	6
Central ..	393,256	..	3	10	4	4	5
East.....	485,522	..	5	11	4	5	10
South	616,635	..	3	3	12	3	7
Total..	2,362,236	4	18	40	28	21	32

DEATHS IN PUBLIC INSTITUTIONS for the Weeks ending Saturday, November 1:—

	Males.	Females.	Total.
Workhouses	46	39	85
Prisons	..	1	1
Military and Naval Asylums ..	5	..	5
General Hospitals	32	14	46
Hospitals for Special Diseases ..	6	2	9
Lying-in Hospitals	..	1	1
Military and Naval Hospitals ..	..	..	..
Hospitals for Foreigners, etc. ..	..	..	..
Lunatic Asylums	1	3	4
Total	90	60	150

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, November* 1, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, Nov. 1, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 44°7						47°4
ALL CAUSES	969	495	147	163	125	36	1008·5
SPECIFIED CAUSES	961	492	145	163	125	36	1001·2
DISEASES:—							
1. Zymotic Class	175	139	16	10	8	2	268·4
2. Dropsy, Cancer, and others of uncertain seat	57	7	10	23	14	3	43·3
3. Tubercular Class	180	64	66	45	5	..	169·2
4. Of Brain, Nerves, etc. ..	82	32	7	22	19	2	105·7
5. Of Heart, etc.	37	4	9	14	8	2	37·5
6. Of Respiratory Organs ..	190	132	7	20	27	4	158·1
7. Of Digestive Organs ..	47	19	6	12	10	..	58·6
8. Of Kidneys, etc.	16	1	4	4	6	1	10·4
9. Of Uterus; viz. — Puerperal Disease, etc. ..	10	..	5	3	2	..	10·2
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	7	4	2	1	..	..	7·5
11. Of Skin, etc.	5	1	1	1	1	1	1·9
12. Malformations	3	3	..	..	..	..	3·9
13. Debility from Premature Birth, etc.	22	22	..	..	..	..	26·0
14. Atrophy	32	30	..	..	2	..	26·2
15. Age	40	..	..	..	20	20	37·8
16. Sudden	9	6	2	..	1	..	8·1
17. Violence, Privation, etc...	49	28	10	8	2	1	28·4
CAUSES NOT SPECIFIED.. ..	8	3	2	..	..	..	7·3

BOOKS RECEIVED.

Maclise's Surgical Anatomy. Fasciculus XIII.

Military Sanatoria. By P. Pincoffs, M.D., etc. London. 1856.

Researches in Pathological Anatomy and Clinical Surgery. By J. S. Gamgee. London. 1856.

Clinical Lectures on Paralysis, etc. By R. B. Todd, M.D., F.R.S. Second Edition. London. 1856.

A Manual of Materia Medica and Therapeutics. By J. Forbes Royle, M.D., F.R.S. Third Edition. London. 1856.

A Manual of Physiology. By W. B. Carpenter, M D, F.R.S., &c. Third Edition. London. 1856.

A Manual of Elementary Chemistry. By George Fownes, F.R.S. Sixth Edition. London. 1856.

Henke's Zeitschrift für die Staatzarzneikunde. Erlangen. 1856.

Journal für Kinderkrankheiten. Erlangen. July aud August. 1856.

Transactions of the Pathological Society of Londou. Vol. VII. Londou. 1856.

Neue Orthopädische Behandlungsweise veralteter Spoutauer Luxationen im Hüftgelenke. Von Dr. J. Wildberger. Leipzig. 1856.

The American Journal of Medical Science. October. 1856.

Pharmaceutical Journal. November. 1856.

The Veterinarian. November. 1856.

Ediuburgh Medical Journal. November. 1856.

First Steps in Photography. By G. Flemiug. An Elementary Pamphlet. Loudon. 1856.

Muspratt's Chemistry, Part XXVII. Londou. 1856.

The Principles of Medicine. By C. J. B. Williams, M.D., F.R.S. Third Edition. London. 1856.

Reports ou the Metropolis Water Supply Parliamentary, Paper. 1856.

The Primary Laws of Health aud Disease. By Jacob Dixon. London. 1856.

Illustrations of the Pathology of Cancer. By J. Z. Lawreuce, F.R.C.S. London. 1856. [A reprint of papers which have appeared in the Associatiou Journal.]

TO CORRESPONDENTS.

So much iuconvenience has arisen from the practice of printing private copies of papers for Authors, that the Proprietors have re-established an old rule—that no private copies of papers published in this Journal can be printed from the type used for the Journal.

Scotus.—A complete Germau system of Surgery is at present a great desideratum, Chelius's "Handbuch" being below the mark. Until such appears Chelius or Stromeyer's "Handbuch der Chirurgie" will be the best to consult. Two systems are, however, in course of publication, one by Victor Bruns ("Handbuch der Praktischen Chirurgie") at Tubingeu, aud the other ("Handbuch der Allgemeinen und Speciellen Chirurgie") by Professor Wernher, of Giessen. Both works will be large, the term "Handbnch" being in these cases translatable by the word System, not Mauual. For the operative part, there is Dieffenbach's excellent "Operative Chirurgie," of which a reprint is now publishing in parts. A good German Cyclopædia, in 3 vols., edited by Drs. Prosch aud Ploss ("Medicinisch-Chirurgische Eucyklopädie für Praktische Aerzte") has just appeared, iu which short articles are contributed by various hands, and which coutains numerous refereuces. It costs about two guiueas.

Mr. Amyot's interesting cases of Sloughing and Perforation of the Appendix Vermiformis shall appear as soon as possible.

Studens.—Dr. Williams's "Principles of Medicine," the works of Dr. Golding Bird, aud Dr. Lionel Beale. The apparatus may be procnred from Mr. Mathews, Portugal-street, compactly arranged.

A Country Surgeon.—The election rests with the Guardians, but it must be coufirmed by the Poor law Board, without which confirmation the election will not be valid. The possession of the double qualification is only dispensed with in certain exceptional cases.

Mr. Morris.—The usual course is to direct the Medical gentloman who last saw the patient during life to make the post-mortem examination; but there must, of course, be occasional deviations from this custom.

Mr. Jennings.—We never insert communications which are seut to other Journals.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your last uumber I fiud a report of a communication made by M. Robin, to the Académie de Médicine, on the condition of the capillary vessels in persons who have suffered from cerebral hæmorrhage. I beg to state, that that important discovery in pathological histology was made by my much esteemed teacher Mr. Paget. I myself witnessed several specimens that he had prepared under the microscope at a meetiug of the Abernethian Society.

Mr. Paget's paper, describing the condition of these vessels iu the specimens observed, and the pathological import of snch conditions will be found in the transactious of the above-meutioned Society, and also iu the Medical Gazette. I am, &c., SAMUEL RHIND.

Burley, near Otley, Yorkshire, November 4

S., Bristol.—Mr. Churchill has informed us that his aim in projecting his series of Manuals, was to make each subject a complete treatise or system, and by fixing the price at 12s. 6d., to confer a boon on the Student, who had, previous to these publications, to pay three times the amount for any standard work contaiuing the same extent of illustration and of matter. To enlarge the type, as sngested by our friendly correspondent, would at once double the price of each volume, and curtail the sale to one-third or one-fourth the present demand.

Errata in Dr. Arnott's paper on Chloroform —Page 436, column 2, line 2 from bottom, for "affected," read "effected." Page 437, line 17 from bottom, read for "of heating for cooling," "cooling for heating.

The interesting cases of Dr. Hood and Dr. Priestley shall appear next week.

J. W's letter would be likely to elicit more useful information if published in the "Veteriuarian" than in our columns.

Atriplex.—Conia, which is one of the alkaloids, is a fluid, aud when freshly prepared, possesses very energetic properties. It is supposed by Dr. Christison, on very good grounds, that the hemlock liquid, with which Socrates was poisoned, was really obtained from a species of Conium.

Studens.—We cannot recommeud "griudiug" to any Student who has average talents and industry; it is merely the refuge of the idle. But the assistance giveu to studeuts in private by the lecturers, or tutors of the schools, or by competent Medical Practitioners, is quite a different thing, and is eminently useful to all diligent pupils, who, whatever may be their zeal and industry, are often in need of a friendly hand to guide and encourage their career.

BIRTHS, MARRIAGES, AND DEATHS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—You exercise a wise discretiou in refusing to insert the domestic eveuts of the Profession at large. It may be important to chrouicle the deaths of men eminent in their calling, but who cares to know that John Squills, Esq., M.R.C.S., L.S.A., &c, has just led to the Hymeneal altar, Jemima, fourth daughter of the late Timothy Scroggius, Drysalter—or, later, that the said Mrs. Squills has been brought to bed of twins? It may be one other iustance of the uncertainty of hnmau life certainly, but it is uot particularly important to the eutire Profession to know even that John Squills, Esq., of Stoke Pogis, has departed this life. Seriously I think your contemporaries have derogated from their scientific character iu converting themselves into Medical Newspapers.

Trusting that you will adhere to your resolution, not to bore your readers with the domestic occurreuces of people they do not care two-pence about, or even never heard of. I am, &c. ÆSCULAPIUS.

[This is but one side of the question.—Ed.]

An Old Correspondent and Contributor.—The subject selected for the Fothergillian Prize Essay for the year 1858 is—"The Influence of Malaria and Miasmata in the Production of the followiug Diseases: Typhus and Typhoid Fevers, Cholera, and the Exanthemata."

Senex.—There is no difficulty in procuring admissiou to the Museum of the College of Surgeons. Any Member of the College can give an order.

Mr. Beaumont.—The botanical collectiou at the Royal Gardens at Kew is certainly one of the finest in the world.

Obstetricus.—It is far better to settle the matter in dispute by the intercession of mutual friends than to enter into the arena of a law-court. In the latter case the lawyers will be the only gainers, and much reproach will be cast upon our Profession.

W. M.—Melior dies, melius factum.

COMMUNICATIONS have been received from—

Mr. TEALE, Leeds; Mr. MAY, Chichester; Dr. PRIESTLEY; Dr. LEE; Mr. BROWNE; Mr. ESTE; Mr. LEET; Dr. WELLAN; Mr. AMYOT; Mr. JENNINGS; Dr. HILLIER; Dr. LOTZKY; SCOTUS; ÆSCULAPIUS; Dr. MACLEOD; Dr. MACKENZIE; Dr. FOWLER; J.W.; VETERINARIAN; Dr. HOOD; Dr. OGLE; Dr. SNOW; Dr. HALFORD; Dr. PRIESTLEY; Mr. NESBITT; Mr. SAUNDERS; Mr. FLEMING; S., Bristol; Mr. LEIGH; Mr. GARDNER; Dr. J. ARNOTT; Mr. RHIND; Mr. DIXON; Mr. LAWRENCE; ATRIPLEX; Mr. BEAUMONT; SENEX; A COUNTRY SURGEON; STUDENS; Mr. MORRIS; OBSTETRICUS; Mr. ALLEN; Mr. SPENCE; Mr. GRIFFIN; Mr. COUSINS; Mr. WELSBY; Mr. E. THORNHILL; Mr. C. SPENCER; SPES; Mr. ASSENT, The London Hospital; Mr. BRYANT, Guy's Hospital; Mr. WEST, Birmiugham; Mr. SKINNER, Guy's Hospital; Mr. COOTE; Dr. WILKS, St. Thomas's-street; THE HOUSE SURGEON OF THE NORTH STAFFORDSHIRE HOSPITAL.

APPOINTMENTS FOR THE WEEK.

NOVEMBER 8. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m.

10. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

11. *Tuesday.*

Operations at Guy's, 1 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m.

12. *Wednesday.*

Operations at Uuiversity College Hospital, 2 p.m.; St. Mary's, 1 p.m.

NORTH LONDON MEDICAL SOCIETY, 8 p.m.

13. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; Loudou, 1½ p.m.

14. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

15. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m.

ORIGINAL LECTURES.

LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.,

Assistant-Surgeon to the Royal Orthopædic Hospital; Lecturer on Surgery at the Grosvenor-Place School; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital, etc.

LECTURE X.

CONGENITAL TALIPES VARUS—*Continued.*

Principles of Treatment—Cases in which Operation is unnecessary; in which its necessity may be doubtful; and in which it is absolutely necessary—Age at which the Operation should be performed.

GENTLEMEN,—We will now proceed to the consideration of the more practical part of our subject, the anatomy and pathology of which we have so fully discussed. The great objects of treatment of congenital club-foot, as well as of all other deformities, are—

1st. The restoration of form, and

2nd. The restoration of function.

The means we have at our disposal for accomplishing these objects may be arranged in three classes, viz.:—The mechanical; the physiological, including chiefly gymnastics, champooing, and galvanism; and the surgical, or rather I would call it the operative, because I regard the other classes of remedial agents to be strictly within the domain of Surgery. The Surgeon must himself conduct the mechanical, and must also direct and regulate the physiological treatment. Before the discovery of subcutaneous tenotomy brought the treatment of deformities immediately under the care of the Surgeon, the method of treatment generally adopted consisted in a combination of the mechanical and physiological means, often of the most imperfect and inefficient kind, because such cases were entrusted to the care of mere mechanicians or empyrics, who undertook the treatment of these cases—of the real nature of which they were utterly ignorant—not only because they were rejected as incurable, or as only capable of alleviation with mechanical assistance, by the members of our own Profession; but because they were solicited, by the leading Surgeons of the day, to undertake the treatment of these cases, for the relief of which the Surgeons themselves had no certain means to offer. When a case of club-foot was taken to Sir Astley Cooper, for instance, or any of his cotemporaries, the patient was at once transferred to Mr. Sheldrake of Leicester-square, Mr. Taylor of the Strand, or Mr. Lawrie of Bartholomew-close, or to some one of the same class of ingenious mechanicians, who gave special attention to the cure of deformities, and combined rubbing and "working of the joints," with mechanical support. At the end of a very prolonged treatment—generally of several years' duration—the slighter forms of congenital varus were frequently well cured, and the treatment was evidently the best which could be adopted in accordance with the science of the day; but I believe they never succeeded in curing the severe or rigid cases, and very seldom those which we should call cases of a moderate degree of severity. As an example of their complete failure in severe cases, I may allude to the well-known case of the distinguished poet, Lord Byron, who, it is known, was in childhood under the care of more than one of these individuals, including the late Mr. Sheldrake, as I am informed by his successor, Mr. Bigg.

In the moderately severe, and in some of the rigid cases, when the treatment was commenced early enough and continued long enough, I believe they often succeeded in curing the inversion of the foot, or the varus portion of the deformity; but I do not think in these cases they ever succeeded in overcoming the equinus, or elevation of the os calcis, depending upon the contraction of the muscles of the calf. I have recently examined a gentleman who was born with a severe degree of club-foot, and, at the recommendation of Sir A. Cooper, remained six years constantly under the treatment of one of the persons above-named; the inversion was overcome, but the equinus remained, and still remains, to an extreme degree. The lameness is consequently much greater than it would have been if the varus had been allowed to continue, and the apparent deformity of the foot not much less. I need hardly say that the case is at the present time quite curable, but unfortunately this gentleman was operated upon a few years ago by a Surgeon of this metropolis for the cure of the equinus, but the after-treatment was neglected, and the deformity soon returned. Under these circumstances we can easily understand some reluctance and distrust in submitting to another operation, but I have confidently assured him of success,—so far as obtaining a useful foot without deformity,—and hope he will not neglect the opportunity of having a most unseemly and inconvenient deformity removed.

I have recently operated upon a club-footed child at the hospital whose mother was also born with club-foot,—a severe form of varus. She tells me that, as her parents were then in a good position, every attention was paid to her case by a person of well-known reputation for the cure of club-foot, and that she continued to wear irons for ten years or more. The case was about half-cured, and both feet are now in the condition of equino-varus. The amount of motion already gained in the ankle-joints has been sufficient to prevent the arrest of muscular development, and consequently her legs are strong, and not much below their natural size; nevertheless, in consequence of the weight of her body being thrown on the outer margin and anterior part of the foot, she cannot walk more than a mile, and even this is accomplished with difficulty. She will probably submit to treatment; and, from the existence of the favourable conditions above-described, the cure will doubtless be perfect.

The results in these three cases, which I have selected for the purpose of illustration, are such as I believe were generally obtained in severe cases, under the system of treatment adopted prior to the introduction of tenotomy; and when you compare with them the results under the present system of treatment, which I shall now describe to you, I am sure you will agree with me in regarding the successful treatment—I will call it the perfect and permanent cure—of congenital club-foot as the greatest triumph of modern Surgery. Without depreciating any of the great advances made in Surgical science, I know of none that will bear comparison with this in respect of the simplicity and safety of the means adopted, the perfection of the results, and the advantages to the afflicted patients.

A good description of the relative merits of the three classes of remedial agents above-mentioned, as applied to the cure of club-foot and other deformities, including an historical sketch of each class, has been recently published by Dr. Parow, of Bonn (a). For a correct appreciation of the relative value of these methods of treatment, we also owe much to the labours of Bouvier, Bonnet, and Guérin of the continent, and of Dr. Little in this country.

Without entering into the discussion of this subject, I would observe that the scientific treatment of talipes varus, as well as of other deformities, can only be accomplished by a judicious combination of all these means; and that many of the failures still frequently witnessed in the practice of those who have not devoted much attention to the subject, are due to the want of this combination of principles, too frequently considered as antagonistic to each other, but which modern science teaches us are only valuable in so far as their mutual dependences are recognised and applied by the scientific insight of the accomplished Surgeon. I shall especially urge the necessity of this combination, because, if there has appeared to me any general fault in the orthopædic practice of the present day, it is that the operative and mechanical means are now too generally combined to the exclusion or neglect of the physiological, the value of which increased experience daily teaches me. The result of this neglect, in severe cases, is that, although the external form of the foot may be restored, a very limited amount of motion at the ankle-joint is gained, and a great tendency to relapse remains.

Now, if the operative and mechanical means in combination are admitted to be inadequate to the cure of club-foot, without the aid of the physiological means; so also, I would

(a) Froriep's Notizen aus dem Gebiete der Natur- und Heilkunde. Jahrgang 1856. II Band. No. 12.

particularly impress upon you the fact that the operative treatment—*i. e.*, tenotomy, without the assistance of the mechanical means, is the most mischievous and unscientific that can be adopted.

There is no greater error than to suppose that club-foot is curable by tenotomy alone. It is undoubtedly true that, in the slight congenital cases, and in many of the non-congenital cases, the foot can be immediately restored to its normal position after division of the tendons; but, I am sorry to say, I have seen several cases treated in this way, in which the condition of the patient has been rendered much worse than if the deformity had never been submitted to treatment, in consequence of no union having taken place between the divided extremities of the tendon, or the new connecting medium being so slender and elongated, that a deformity of a much worse, and quite incurable, form has been produced within a few months of the first operation. Nevertheless, so little attention has been paid to this subject; so little has the pathology of club-foot been studied; so little has the reparative process in tendons after division been investigated; and, therefore, so little are the conditions essential to the perfection of this process understood, that we find tenotomy and immediate restoration of the foot,—even with active exercise of the limb in walking within three days of the operation,—recommended and publicly taught in the present day by the professor of clinical Surgery in the University of Edinburgh. In a clinical lecture on tenotomy, published in the *Lancet*, March 17, 1855, Mr. Syme strongly advocated this method of treatment, and, in illustration, published six cases—three of equinus, two of varus, and one of valgus—treated by him in this way, and said to be successful; but no report was given beyond that stating the effects of the operation within a few days. After the operation and application of a bandage in the first case Mr. Syme observes:—"The bandage will be kept on for forty-eight hours, when no further treatment will be required, as the use of the limb in walking will be sufficient to bring the foot into its natural form;" and, in reference to the practice of gradual mechanical extension, adopted at the Royal Orthopædic Hospital, he adds: "You will find that this Institution, so far from discountenancing or abolishing the treatment which subcutaneous incision was proposed to supersede, has greatly promoted, and, indeed, enormously extended, the evils of that objectionable system."

The answer to this is that, in severe cases, tenotomy alone will not enable you to restore the form of the foot, in consequence of the adapted shortening of the ligaments previously described; and in slight cases the danger of non-union, or excessive elongation of the new connecting material, should deter any Surgeon from adopting Mr. Syme's recommendation.

In very slight cases of varus, a combination of the mechanical and physiological means; and in all, except these very slight cases, a combination of the three classes of remedial agents, viz., the operative, mechanical, and physiological, according to the circumstances of each case, is the only scientific, safe, and successful method by which the twofold object of the restoration of form and function can be obtained.

Cases in which operative treatment is unnecessary.—Accoucheurs are all familiar with the fact, that children are not unfrequently born with the feet a good deal inverted; sometimes the varus position of the feet is well marked in their external form, but no obstacle exists to the perfect restoration of form by gentle manipulation. Experienced nurses are equally familiar with the fact, and feel no alarm, because they know that manipulation alone, or what they call "working the feet," will soon remove the defect. This spurious form of varus, which, I need scarcely observe, is unaccompanied with any structural changes, is probably the result of mechanical pressure and position *in utero* acting towards the close of gestation. The children are said to be generally of large size, and perhaps there may be in these cases some deficiency of the liquor amnii. In some of the more severe cases of this class, I have applied an ordinary boot with a small steel spring attached to its outer side, and passing up to the calf of the leg, where it is fastened to a narrow semicircular steel band, which by the aid of a strap encircles the leg; a free joint is placed in the steel opposite to the ankle-joint. This acts as a useful retentive apparatus; and, with the exercise of the foot, which the nurse must be directed to do, nothing further will be required.

Doubtful cases as to treatment.—Cases a little more severe than those just described also frequently occur—cases in which the foot can be very nearly, but not quite, restored, to its natural form by manipulation; the foot can be everted, but the heel remains somewhat elevated, so as to limit or prevent flexion at the ankle-joint. Now, in this class of cases, there is the greatest range for difference of opinion with respect to the operation. The opponents of tenotomy, and those who believe that tenotomy interferes with the full development and ultimate power of the muscles operated upon, oppose tenotomy in all but the most severe forms of varus; while some over-zealous advocates of tenotomy advise the operation in all but the slightest forms of varus previously described. There can be no doubt that these cases are curable both with and without the operation; and, if the case is curable by mechanical and physiological means, some would object to the operation as uncalled-for—holding that *a necessity* must clearly be shown to justify every operation in Surgery, and bearing in mind the possibility of accidents and untoward circumstances.

Another objection to the operation in these cases is founded on the asserted effects of tenotomy on muscles the tendons of which have been divided. On this subject Dr. Little has observed, "Although the form of the member is by means of tenotomy more promptly remedied, the function of the divided muscles is often less completely restored. The author has witnessed many instances of congenital varus successfully treated without tenotomy, by others as well as by himself, in which the muscles of the calf attained almost the normal development; whereas after tenotomy, the muscles usually remain much smaller than natural, and the calf disproportionately high"(b). The two statements contained in the last sentence of this quotation are equally true of different classes of cases, but I think the results stated could not have been drawn from a comparison of cases in the same condition at the period of birth. It may be fairly assumed, that in nearly all the cases cured by mechanical means, little or no structural change existed at the time of birth, and, therefore, no reason appears why the subsequent muscular development should be interfered with; but in the other cases, the fact of tenotomy being required implies, that structural shortening of the muscles existed, and with this condition I have explained that the bellies of the muscles are always smaller and shorter than in the healthy condition—this may be very slight at birth, but becomes more obvious every month after birth, and is conspicuous at the age children are generally operated upon for varus; so that as a rule, after tenotomy, the muscles do remain smaller and the calf higher than in healthy limbs, and the avoidance or diminution of this condition I always consider to be a strong argument in favour of tenotomy as early as the first or second month after birth.

If cases in precisely similar conditions were chosen for the observation—a certain amount of structural shortening existing in all—and some were submitted to mechanical treatment, while the operation was performed in others; I believe the muscular development would be greater in those in which tenotomy had been performed, because, by restoring the balance of muscular action, the functions of all the muscles and the joints are more quickly and more perfectly restored. But if the results above stated by Dr. Little were based on the observations of cases the conditions in which were all equal, the inference would be, that tenotomy exerted an unfavourable influence *per se* on the development of the muscles operated upon, and, therefore, would only be justifiable in the most severe cases; and this seems to be pretty much Dr. Little's opinion.

The result of my own experience, and I believe I may say that of all my colleagues, is directly opposed to such an inference. In cases in which an elongated and attenuated condition of the new material has been allowed to take place by neglect, and in some non-congenital paralytic and spasmodic cases, a foot may appear to be, and really may be weakened by tenotomy; but in these cases it is not anticipated that the operation can restore the balance of muscular action, and the conditions are very different to those present in congenital varus.

In the class of cases we are now specially considering, some real difficulty may exist in some instances in deciding for or against the operation, but the practical rule upon which I rely in forming an opinion has reference to the degree of

(b) On Deformities, page 303.

elevation of the os calcis. This is the test of the extent of structural shortening of the gastrocnemius and soleus muscles. If the elevation of the os calcis exists in a marked degree, though not nearly to its full extent, I advise the operation, because I think the uncertain result of mechanical treatment in such cases justifies tenotomy, which may also be recommended on the ground of its diminishing the treatment from months, or, perhaps, years, to weeks—of expediting the cure—and in this respect I think its advantages outweigh the objection, on account of the risk incurred, which, in practised hands, is very slight. In these cases division of the tendo-Achillis, and the tibialis antieus tendon, will generally be sufficient; but if when the foot is everted by the pressure of the hand, the inner malleolus does not become sufficiently prominent, we must assume that the navicular bone is drawn towards the malleolus by the contraction of the tibialis posticus muscle, and its tendon should also be divided.

If mechanical treatment be decided upon, the Scarpa's shoe is the best apparatus that can be used, because you have the means of adapting it to the deformed foot, and can regulate the extending force; but even this can seldom be kept in action if decided elevation of the os calcis exists; the heel cannot be kept well down in the shoe, although it may be re-adjusted a dozen times a day. I have seen a great variety of splints used, some made of gutta percha, which in slight cases answers very well under good management, because the foot can be held in an improved position whilst the gutta percha is getting cool, and this position is afterwards retained; but the foot sometimes gets a little shifted, or the gutta percha may be accidentally indented during the process of applying it, and in either case the hard irregularities of its inner surface are very apt to cause undue pressure and ulcerations. The young gentleman whose case is represented in Figs. 1 and 2 in the first lecture, was very much tortured by this plan of proceeding, in addition to the very remarkable *cutaneous operation* to which he was experimentally subjected, and other contrivances during two years of treatment before he came under my care. Very pretty-looking laced boots, with steel springs and supports, are used, especially by a rather notorious lady, a Madame C——, in this metropolis, who, in conjunction with her husband, a so-called M.D., equally notorious, professes to eure spinal curvature, and all other deformities. But the conclusion I have eome to is, that the cases either do well with very little mechanical assistance, or that if much is required it always fails; and if the elevation of the os calcis exists—which is the best practical test I can give you—the operation ought to be recommended at once.

Cases in which operation is absolutely necessary.—In describing to you the treatment in the class of cases we have just considered, viz., those in which the foot can be very nearly restored to its natural form by manipulation, and which I have classed as doubtful as to treatment, because many Surgeons who appreciate the value of tenotomy, and some Orthopædic authorities, eonsider the operation to be unnecessary; and because some of the cases are cured without tenotomy, I have already laid down a practical rule with respect to the position of the os ealcis, upon which I think you may rely in deciding upon the propriety of operating.

Now, in the next class of eases of a more severe grade of the deformity—ranging from those last described to the most rigid and severe cases ever met with—division of the tendons is indispensably necessary. By what indications, then, can we recognise this class of cases, so that we may at once decide upon the operation? Some authorities lay great stress upon the angle which the foot in its inverted position forms with the leg, *i.e.*, whether this angle is greater or less than a right angle; but I consider this to be a useless and fallacious test of the severity of the case, because it not very unfrequently happens that a foot drawn up to a right angle with the leg, or even beyond it, may be easily and very eompletely everted; and sometimes also in these cases the os calcis may be partially, or even completely, depressed, so that they must be classified with those last described. I had lately under my care a case of this kind, so well-marked that I had a cast of it taken, which I now show you. In this apparently severe case I did not divide any tendons, and it did very well with mechanical treatment, the Scarpa's shoe being used, and required no more attention than the mother could give it. The following are the indications upon which you must rely:—The foot cannot be fully everted, or brought to a straight line with the leg by manipulation; it generally stops half-way, and never passes more than about two-thirds towards this line; and when the foot is everted as far as it will go, the inner malleolus does not become prominent. The os calcis either cannot be depressed at all, or only to a very slight degree, so that after the partial eversion of the foot, little or no flexion at the ankle-joint can be obtained. The existence of these two conditions is quite sufficient to determine the absolute necessity of the operation. The fact of the inner malleolus not becoming prominent when the foot is everted, depends upon the impossibility of drawing the navicular bone from its displaced position, and proves the existence of contraction and structural shortening of the tibialis posticus muscle to an extent which, I believe, cannot be overcome by mechanical means; I will presently advert to the dissection of a case corroborating this opinion; and the fact of a rigid elevation of the os calcis also proves the existence of a similar condition in the gastrocnemius and soleus muscles.

In the extremely severe forms of varus occasionally met with, and of course included in the class we are now considering, the foot is often drawn inwards and upwards, so far as to be almost, and sometimes quite, in contact with the side of the leg, and it cannot be depressed or everted beyond a right angle with the leg; in these cases the tibialis anticus and extensor pollicis muscles are more contracted than in the cases just mentioned, and a greater amount of ligamentous adaptation, and, therefore, of shortening of some of the ligaments, which I have previously described to you, exists, and most materially contributes to the rigidity with which the foot is held in its deformed position. Now, we have no evidence to show that any of this elass of cases, included within the range above mentioned, ever were cured by mechanical or other means, previous to the introduction of tenotomy. Abundant evidence of the failure of such means exists in the numerous cases of varus now seen in middle-aged and elderly people in the middle and upper classes of society, and in which it is known that neither trouble, time, nor expense, were spared in the fruitless attempts at cure during their childhood. And as many similar cases are still, even in the present day, submitted to mechanical treatment, further evidence of the eomplete failure of such means may not unfrequently be witnessed.

Tenotomy still has its opponents and its half-believers, and there are still confident advocates of mechanical treatment even in the highest ranks of our Profession. In fact, nothing can be more unsettled, and apparently based on more vague and indefinite principles than the orthopædic practice as carried out by the Profession in the present day. Mechanical treatment alone was persevered in for more than a year by a surgeon of good reputation in the case represented in Fig. 1 and 2 in the first lecture, although it was a decidedly severe case at birth;—and in the case of which I now show you the casts (Fig. 40), mechanical treatment had been continued for five months, without any benefit, by three surgeons, one of them the author of a work on Deformities, and also by the notorious Madame C. previously alluded to. The indications I have already pointed out to you were all present in this case in a marked degree, and therefore I at once performed the operation in February, 1853, with the assistance of Mr. Alfred

Fig. 40.

Severe Congenital Varus.

Fig. 41.

Cure of case represented in Fig. 40.

Brown, of Wandsworth, and my pupil, Mr. J. Curtis. In two months the feet were perfectly restored to their natural form, (see Fig. 41,) and the child being muscular and vigorous, the extensor and peronei muscles assisted so much to keep the feet everted, that it was scarcely possible to trace the previous existence of any deformity. The feet are now strong and well formed, and the legs very little below their full proportionate size. I may mention, however, that a decided inclination to inversion, from the knee-joints, existed

in this case; and, therefore, steel-supports, as a directive apparatus, which I shall hereafter advert to, have been required up to the present time, but will very soon be discontinued, and the cure will then be in all respects complete and perfect.

These cases are then equally good examples of the failure of the mechanical, and the success of the operative and mechanical treatment combined, in the class of cases we are now considering; and I mention some of the details connected with them, because I am desirous that you should understand the very uncertain condition of the Surgical practice of the present day, in reference to the treatment of deformities.

Having now considered the different methods, or rather principles, of treatment applicable to all cases of congenital varus, arranged in a threefold division, and especially described—1st. The cases in which operative treatment is unnecessary; 2nd. Those in which the necessity of operative treatment is, by some authorities, considered to be doubtful; and, 3rd. The cases in which operation is absolutely necessary; a question of the utmost practical importance next presents itself, viz.:—

At what age should the operation be performed?—This question has hitherto been decided, either upon some vague and erroneous notions as to the assistance to be derived from muscular exercise in walking, or simply by reference to the results of treatment; and, as the treatment has not been based on any very definite principles, neither the mode of operating nor the after-treatment being uniform, the results have been proportionably variable. Some Surgeons, by their judicious operations in infancy and assiduous attention to the after-treatment have succeeded in curing their cases, and, therefore, advocate operation at an early period; while other Surgeons have so frequently seen the deformity return after their operations in infancy, that they as strongly recommend delay until the child has begun to walk, or a little before this period, relying upon a certain amount of assistance from the use of the foot. In private practice, I find that the general opinion given by Consulting-Surgeons in London, at the present time, is, that the operation should be deferred till about the walking period, viz., the tenth or twelfth month, and sometimes later. Probably this has been influenced by the opinion given by Dr. Little, that "the most favourable period for the division of tendons, in infantile cases of talipes, is a few months before the time when the child may be expected to make the first attempts to walk—about the age of 6 or 8 months, until which time, in cases of talipes varus, mechanical apparatus should be used to turn the toes outwardly, reducing the deformity to the condition of talipes equinus" (c).

The arguments adduced by Dr. Little against the early operation, *i.e.*, within the first few months, are:—

1. "The objection which, on general grounds, may be made to the performance of any operation, however simple, during the earliest months of existence.

2. "The curability of many cases by mechanical means alone; and the fact that many others may be half cured by mechanical means, the equinus portion of the deformity alone remaining, which may be cured at a later period.

3. "The necessity which exists after the early operation, for continuing a retentive apparatus till the walking period.

4. "The liability to interruptions, from illness in very young infants," which Dr. Little considers would certainly cause a reproduction of the deformity after early operations, but would be of little consequence, if mechanical treatment alone were adopted.

Professor Lizars, of Edinburgh, attaches the greatest importance to the assistance to be derived from "the due exercise of the muscles, ligaments, and articulations of the foot;" and on this account, as well as from the liability of the apparatus to fret the skin in infancy, postpones the operation to a much later period than Dr. Little. He observes:—"Two or three years of age is the earliest time at which the division should be attempted. I prefer three years" (d).

Now, Gentlemen, I propose to show you, that the age at which the operation should be performed is to be determined by the anatomical and physiological condition of the structures involved in the deformity; and that it is of the utmost importance to the perfect cure of the case, and the well-being of the individual, that the solution of this most important practical question should rest alone upon its scientific basis, unless influenced by any consideration of the general health of the infant.

I have already explained to you, in the description of the morbid anatomy of talipes varus, that, at the period of birth, very important deviations, both in form and position of the bones and adapted shortening of certain ligaments, constantly exist, in proportion to the severity of the deformity. The deviations in form of the astragalus were particularly pointed out; and I stated, that "the malformed condition of the astragalus is determined by the mal-position of two of the bones with which it articulates, viz., the navicular bone and the os calcis; and that its altered form is in evident adaptation to the altered position of these bones."

I also stated, that the effect of allowing the deformity to remain during the period of active growth and ossification of the bones, was not only to induce the persistence of these abnormal conditions, but a positive increase both in the deviations of the bones and the adapted shortening of the ligaments.

Now, it must be obvious to you that the astragalus can only assume its natural form after the cause of its malformation, viz., the abnormal position of the navicular bone and os calcis, has been removed; and in restoring the position of these bones, the ligamentous shortening must also be overcome. To effect these objects it is clear that the operation ought to be performed at as early a period as may be consistent with the general health of the child.

Arrest of development of the muscles of the leg, I also described as a constant and most important effect of the persistence of the deformity, and one from which the individual never recovers. As in the deformed foot there is no power of flexion in the ankle-joint, all the great muscles of the leg remain unused, and, therefore, in preventing muscular development, and, perhaps, also in causing some degeneration of the muscular tissue, I need hardly say, that each month does its share of mischief. The longer the deformity remains uncured the less will be the ultimate size of the muscles of the leg; and, therefore, on this account also I strongly advise early operation.

With respect to the objections to early operation urged by Dr. Little, I do not consider them of any real weight when compared with the substantial advantages above mentioned. Infants two months old bear these operations remarkably well, often without a single night's rest being disturbed, and the mechanical treatment which I shall presently describe is borne with little or no inconvenience. The long continuance of a retentive apparatus is not always necessary, and, if the mechanical treatment be adopted, some apparatus must also be worn. The liability to interruption of treatment from infantile complaints is much less to be feared within the first few months than at a later period; and, when the foot has been well cured, I have never seen the deformity return during a few weeks of illness. In my experience I have found it of the utmost advantage to get the treatment of the club-foot over before the commencement of dentition, during which process children are generally fretful, and become liable to so much illness that interruptions from this cause may really be feared. Moreover, at the later period, children are so much stronger, that they often resist all treatment with great violence, and in a passionate child I have known hernia produced from this cause. Upon these grounds, therefore, I strongly advise, that if the child be in good health, the operation should be performed between the first and second month. Delay beyond the second month is unnecessary, and certainly acts prejudicially upon the ultimate result of the case.

[To be continued.]

(c) Op. cit., page 284.
(d) Practical Observations on the Treatment of Club-foot. Third edit., page 9. Edinburgh: 1855.

ORIGINAL COMMUNICATIONS.

ON THORACIC ANEURISM,

MORE ESPECIALLY IN REFERENCE TO ITS DIAGNOSIS.

By HENRY WILLIAM FULLER, M.D. Cantab., F.R.C.P.
Assistant-Physician to St. George's Hospital, etc. etc.

(Concluded from page 465.)

Dysphagia is a common and often a most prominent symptom of thoracic aneurism. It existed in nine out of the twelve cases recorded by Dr. Greene, and in seventeen out of

twenty-eight cases of which I have notes. Fortunately, it presents several distinctive peculiarities. Unlike the dysphagia produced by scirrhus of the œsophageal tube, it is unaccompanied by the rapid wasting, the sallowness of complexion, and the peculiar aspect characteristic of such disease; it is often rapid in its commencement, uncertain in its progress, and varies greatly from day to day in its completeness and severity. One day the patient may be unable to swallow the smallest quantity of solid food, and with difficulty takes nourishment enough, even in a fluid state, to satisfy the cravings of hunger; whilst, on another day, or perhaps only a few hours afterwards, he may be able to swallow, without pain or difficulty, whatever his inclination induces him to attempt to eat. Thus I have seen a person eat a mutton-chop without difficulty in the evening who in the morning could hardly take a drop of milk. The difficulty of swallowing is often, and, indeed, generally increased by whatever tends to accelerate the circulation. It is, therefore, relieved by perfect rest, and in many cases also by free venesection. When a hard-working man is admitted into the Hospital suffering from dysphagia, arising from the cause now under consideration, the relief afforded by the use of the lancet and by the freedom from exertion which he there enjoys is often so remarkable and so immediate that he fancies a rapid cure is to be effected. Nor is this the only way in which relief is to be obtained. Depending as the symptoms do on pressure of the sac, the dysphagia may be alleviated by whatever tends to take off the pressure and alleviate the spasm arising from its irritation, a spasm occurring not only at the immediate seat of obstruction, but occasionally much higher up the tube. Accordingly, it not unfrequently happens that an inclination of the body forwards enables a patient to take that with ease which he would be otherwise utterly unable to swallow. In one instance I saw most marked relief from the patient remaining in this posture about an hour before the time for his meals. After such a preliminary arrangement he could swallow without much difficulty; whilst without such a preparation he could scarcely swallow even the smallest quantity of sopped bread. How different these from the symptoms presented by malignant disease of the œsophageal tube!

The diagnosis between pressure from an aneurismal tumour and that produced by any other mass of disease within the thorax is, to some extent, more difficult and complicated. But even here certain differences exist which should lead in most cases to a correct conclusion. The previous history and present aspect of the patient, and the existence of disease, whether malignant or scrofulous, in other parts of the body, would cause a suspicion of similar mischief within the thorax; whilst the absence of such disease; the existence of an hereditary tendency to aneurism (a); the constant variation in the amount of the dysphagia; the peculiar character of the accompanying cough and dyspnœa; the wheezing and aphonia, the palpitation, headache, occasional vertigo, and other symptoms of disturbed circulation, together with the observed effects of remedies and of changes of posture, would excite suspicion of aneurismal pressure.

The pain in the back is a symptom which often arrests attention. Its cause generally appears to be irritation of the nerves produced by the pressure of the aneurismal sac; for though it is usually more severe where erosion of the vertebral column is going on, it exists to a very considerable degree in instances where the bones are found uninjured after death. It is not attributable, therefore, to the process of ulceration. The patient, probably a healthy looking person, without appreciable disease of the spine, complains of pain at one particular spot, so constant and so severe as to render him restless and miserable during the day and utterly unable to sleep at night. He dreads certain postures as inducing or aggravating the pain, and he particularly avoids lying on his back. He moves with the greatest caution, and can hardly be prevailed upon to take active exercise, so certainly are his sufferings aggravated by so doing. The expression of his countenance is indicative of suffering, and there is that in his manner and ordinary gait which would prevent the cautious practitioner from treating the case lightly. The pain itself, which is usually accompanied by a distressing sense of oppression at the chest, and occasionally by constriction across the epigastrium, is often referred to a spot in the back, a little below the junction of the neck and thorax; sometimes it extends to one of the shoulders and shoots down the corresponding arm; and sometimes, though principally affecting the back, it will shoot with great violence along the neck. In most instances it is paroxysmal, or rather, is aggravated in paroxysms which seem independent of external causes. It is often described as a dull, heavy, aching, or sometimes as a lancinating or a burning pain, and sometimes the patient, in dreadful agony, declares his back is breaking. In six instances I have seen this agonizing pain accompanied by occasional dysphagia, and followed by hæmoptysis, or by slight hæmatemesis, the only obtainable sign of disease; the stethoscopic, as well as the other usual general symptoms of aneurism being altogether absent. Indeed I have so often known this pain in the back—a pain be it remembered of a peculiar character, and invariably referred to the same spot—for some time at least the only discernible symptom of disease, that, whatever my impression of the case, I never treat such symptoms lightly. Nor am I alone in counselling extreme caution in cases such as these. "The description given of this pain by the patients," says Dr. Greene, "was always the same, so that its character could be recognised, and there was a degree of earnestness in the description very unlike that of persons who are merely feigning. I mention this latter circumstance because from their long complaining of this pain without any apparent cause to account for it, four of these patients had been condemned as malingerers."

Viewed then simply by itself, this pain is an unusual and a striking symptom. Its paroxysmal character, its aggravation by exercise, its marked increase when certain postures are assumed, the relief which is often obtained by venesection, and its want of connexion with any obvious cause, are circumstances sufficient to excite the suspicion of any cautious practitioner. And although pain may be excited in the same situation by disease of the vertebræ, by malignant disease within the thorax, by enlargement of the bronchial glands, dependent on cutaneous or scrofulous deposits, and, indeed, by anything causing pressure in the same situation, still, when suspicion has been once excited, it is seldom that, from the history or symptoms of the case, some facts may not be elicited calculated to assist in confirming the diagnosis.

The pulse is not necessarily interfered with in these cases; but according as the arteria innominata or the left subclavian is pressed upon or implicated in the aneurismal swelling, so of course does the pulse vary. Sometimes it is altogether absent at one or both wrists; sometimes it is weaker or later on one side than on the other; sometimes it is remarkably weak at both wrists, and quite out of character with the impulse and sounds of the heart; and sometimes again it may be unequal and attended by a peculiar thrill in the one arm, whilst it is soft and regular in the other. These peculiarities, though sometimes produced by irregular distribution of the vessels and by other causes than aneurismal pressure, are yet sufficiently suggestive of mischief to direct attention to its real seat, and thus become valuable accessory symptoms.

These symptoms then, together with hæmoptysis and hæmatemesis, which, until the fatal event takes place, present nothing distinctive, beyond their obvious want of connexion with their usual exciting causes, I take to be the most important of the general symptoms of thoracic aneurism; others there are, which, whatever their value, it is not my present intention to discuss. Such for instance are the phenomena arising from obstructed thoracic circulation; turgescence of the superficial thoracic veins, or of the veins of one or both upper extremities, accompanied by œdema, and more rarely by paralysis; such also are the signs obtained by percussion, and by the non-expansion, or by the imperfect or irregular expansion of certain portions of the chest walls; phenomena which simply indicate the presence of some foreign matter within the chest, but afford no precise information as to its nature. Such again are the phenomena connected with disturbance in the centre of circulation, and those referable to interference with the cerebral circulation, the sudden startings at night, the frightful dreams, the occasional syncope. These and many others, though valuable as accessory to, and confirmative of, other more characteristic symptoms, are yet hardly sufficient of themselves to excite a suspicion as to the real cause of mischief. These then I shall pass over, together with the stethoscopic signs, which it is not my present object to discuss.

(a) I am acquainted with a gentleman whose paternal grandfather, uncle, and father have all died from the effects of aneurism, and whose sister at the present time is labouring under that disease.

Now, it is constantly asserted that, in the diagnosis of aneurism, we have the physical signs alone to depend upon; that the general symptoms I have described may be met with separately, and under every variety of combination, independently of pressure from an aneurismal tumour; and, consequently, that they afford no diagnostic marks of the presence of the disease in question. But, although it cannot be denied that it is quite possible for each and all of the general symptoms already enumerated to occur independently of aneurismal pressure, yet I am convinced, by close and careful observation, that no more uncertainty attaches in many cases to indications derivable from such a source than to those obtainable by means of the stethoscope. Without undervaluing the assistance of the stethoscope in the diagnosis of thoracic aneurism, I do not hesitate to state that, in at least half the cases met with in practice, more especially in the stage in which they first attract attention, more real information is to be derived from a careful consideration of the general symptoms than from the imperfect revelations of the stethoscope. In some instances, indeed, the stethoscope gives us all the information we require; but, in many, even up to the moment of death, it gives us nothing but negative information. It tells us, perhaps, of an obstructed bronchus, or shows us that no organic disease of the heart or lungs exists to account for the hæmoptysis which is frequently occurring; but it often fails to do more than this, for the aneurismal pouch may be smoothly lined with coagula, and may not occasion a murmur, and the heart's action may not be greatly disturbed. Did time permit, I might cite many cases which have fallen under my observation at St. George's Hospital and elsewhere, in which the existence of aneurism was correctly diagnosed by means of the general symptoms alone, the stethoscope failing to afford any positive evidence on the subject. Indeed, when the general symptoms are well marked, the nature of the disease must certainly suggest itself to any one who has had much experience in such cases. The appearance of the patient, the curious succession and alternation of the symptoms, their strange combination, and their aggravation and alleviation by causes which exert no influence under ordinary circumstances, must one and all awaken suspicion as to the real nature of the mischief.

The variableness of the symptoms is the point which, according to my experience, is most deserving of attention. There are few, if any, of the general symptoms of thoracic aneurism which may not be produced by the pressure of any diseased mass within the thorax; but, when they are attributable to aneurismal pressure, they are generally distinguishable by the feature just alluded to. A diseased mass, whether malignant, scrofulous, or of whatever nature, having broad and firm adhesions in the chest, arising that is from a broad extended surface, as such masses do almost invariably, would not be influenced by change of posture sufficiently to effect any material diminution in the amount of pressure, whether on the spine, the œsophagus, the bronchi, or other parts; but an aneurismal tumour, arising, as it often does, from a narrow base, and attached only to a vessel which admits of considerable motion, will have its position altered considerably by gravity alone, if the patient leans sufficiently forward; and thus the spine, the œsophagus, the trachea, and the larger bronchi may be, in great measure, relieved from pressure. Accordingly, on several occasions, I have heard patients suffering from aneurismal tumours declare that, although they could eat, drink, and breathe without much difficulty in one position, yet that their pain was immediately aggravated, the dysphagia increased, or a severe paroxysm of dyspnœa induced whenever they attempted to assume another.

But let me not be misunderstood. I do not wish to imply that an aneurism cannot exist within the thorax without producing evident symptoms of its existence, nor even that when it does give rise to general symptoms, they may not prove insufficient grounds on which to base a certain diagnosis. Unfortunately too many cases arise in practice to show that our means of diagnosis of thoracic aneurism are very uncertain, even when we call the stethoscope in aid of the general symptoms of the disease. But what I do believe is, that the real nature of the disease is sometimes overlooked, by reason of a too implicit reliance on its physical signs, and a too ready neglect of its general symptoms. In many cases recorded as symptoms of aneurism without corresponding thoracic symptoms, I am satisfied, from facts incidentally mentioned, that symptoms existed which should have served to awaken suspicion. And without laying it down as an invariable rule, I do believe that symptoms are generally produced sufficiently marked to direct attention to the seat and nature of the mischief, and this, after all, is the practical question. It is not whether in some few instances the obscurity of a case may not mislead even the most wary, but whether, by close attention to the history and progress of the symptoms, we may not, in the great majority of cases, obtain glimpses of light sufficient to enable us, in some measure, to penetrate the surrounding darkness. If our suspicions are but excited, they will cause us to speak cautiously, and prevent our treating the symptoms lightly and as of little consequence, a blunder which would never be forgiven if our patient were afterwards to drop down suddenly and expire.

I have said that I consider undue importance is often attached to the stethoscopic signs of thoracic aneurism, inasmuch as they do not exist in many doubtful and obscure cases, and by their absence are apt to lead to a disregard of the indications derivable from the general symptoms, while, if the case is clear and obvious, they are hardly needed in confirmation of the diagnosis. But, more than this. Instances are occasionally met with in which they occur independently of the lesion, of which they are considered the characteristic exponents. In exemplification of this fact I will briefly relate a case which fell under my observation in the year 1847:—A poor woman, aged 48, applied to me on the 7th of May, complaining of dropsy, dyspnœa, palpitation, and sickness. She had long suffered from dyspnœa and palpitation, and since the previous March, when increasing oppression of the chest and palpitation prevented her taking exercise, she had suffered from œdema of the lower extremities. The only other symptoms she complained of were of a dyspeptic character, with constipation, flatus, pyrosis, and vomiting. She had never had rheumatism, nor had she ever received a blow or injury on the chest.

When I first saw her she was unhealthy in appearance, but not much emaciated. There was frequent cough, with thick, muco-purulent expectoration, and excessive dyspnœa, indicated by the quickness of the respiration and lividity of the lips. Her legs were slightly anasarcous. She was complaining of pain and pulsation, referred to the upper part of the sternum, and to a spot just to the right of the sternum, between the second and third ribs. Distinct pulsation could be felt in that situation, and there was an imperfectly-defined tumour. There was extended dulness on percussion in the precordial region, reaching almost up to the right clavicle; the heart's action was tumultuous and rather irregular; its impulse was increased, and its apex was pulsating between the sixth and seventh left ribs. Its sounds were dull and heavy, and at the apex were unattended by appreciable murmur. From about on a level with the lower border of the fourth rib upwards to the clavicle, and for nearly three inches to the right of the sternum, was heard a loud, rough murmur, synchronous apparently with the pulsation felt between the second and third ribs, as also with the systole of the heart. It manifestly accompanied the first sound of the heart, but was prolonged over and much obscured the second sound. It was heard loudest on the sternum at about the level of the upper border of the second sterno-costal articulation, but it was exceedingly loud over the whole of the space already alluded to, and could be heard distinctly on the back. There was no perceptible difference between the pulse at either wrist, but it was in either case small and weak.

Taking the murmur in connexion with the dulness on percussion, the distinct, and to some extent circumscribed, pulsation between the second and third ribs on the right side of the sternum, and the obviously obstructed cardiac circulation, I, in common with all who saw her, inferred the presence of an aneurismal tumour. The physical signs were implicitly relied on to the exclusion of the general symptoms; or, perhaps, I should be more correct in stating, that the absence of the general symptoms of aneurism was not allowed its due weight in determining the nature of the existing mischief. The dyspnœa was not characteristic of aneurism, there had never been dysphagia, nor pain in the back, nor alteration of the voice, nor hæmoptysis, nor any of the other general symptoms of aneurism, but the physical signs were deemed sufficient of themselves to determine the nature of the disease.

The patient lingered on for about ten weeks; the dyspnœa, palpitation, and vomiting continued, the anasarca increased,

and she sank, after remaining comatose about three or four hours.

The post-mortem investigation revealed the uncertainty of physical signs when taken independently of general symptoms. In the anterior mediastinum was a mass of malignant disease reaching from about the level of the fourth rib nearly up to the clavicle, and extending considerably to the right of the sternum. This mass was pressing in some measure on the heart itself, and also on the large vessels; and while the pressure thus existing, produced alteration in the form of the aorta, which, roughened by abundant atheromatous deposits, gave rise to the murmur so distinctly heard, pulsation was communicated to the malignant mass, and thus was felt to the right of the sternum. The sickness and the dyspeptic symptoms had been produced by fungoid disease of the stomach affecting chiefly the cardiac extremity, and a small, malignant mass was found in the smaller lobe of the liver.

Once more, then, let me say, I think the general symptoms of thoracic aneurism are too often undervalued. The indications of disease obtainable by the stethoscope are so important, and of late years we have learned to trust to them so implicitly, that we are apt to run into the error of neglecting symptoms which, under certain circumstances, and in certain instances, afford us information which the stethoscope cannot.

Manchester square.

A DISSECTION OF A CURIOUS MALFORMATION OF THE FOREARM.

By W. O. PRIESTLEY, M.D.,
Accoucheur to the St. George's and St. James's Dispensary.

During the last month a sickly-looking female child, born two or three days before, was brought to St. George's and St. James's Dispensary, and placed under my care. The mother had been attended by a midwife at the time of the child's birth (September 16), and, except that the presentation was a breech, no unusual circumstance or difficulty had presented itself during the labour. When brought to the Dispensary the child had, when applied to the breast, made no attempt to grasp the nipple, and the nurse had formed the opinion that on this account it was tongue-tied. The frænum I found, however, was not prolonged further forward than usual. The mother had gone, as she supposed, to her full time; but the whole body of the child was emaciated and bore evidence of being ill-nourished. Very little adipose tissue was present beneath the skin in any part of the body; and its absence from the face gave the child a pinched and prematurely old expression, which was the more marked when it gave forth its feeble, whining cry. The body was well formed, with the exception of the right upper extremity. Nails were present on all the digits, and the dark hair on its head was of considerable length.

The right arm was flexed to the angle shown in the engraving,

Two-thirds natural size.

and admitted of only very slight extension. The contraction seemed at first sight produced by the fold of integument stretched across the angle of union between the arm and forearm, but was found afterwards to be deeper seated. In the forearm I could detect only one bone, and the extent of rotation was much more limited than usual.

A thumb, with an opposing first finger, were the only digits present on this extremity, and the hand was only broad enough to form a sufficient basis for the thumb and finger. The normal number of phalanges was present in the digits, and the nails were well shaped. There was no trace of cicatrice or contraction on the inner side of the hand or forearm, and the forearm was of proportionate length to the arm.

As the child refused the breast, constant attempts were made to feed it with a spoon; it imbibed, however, little nourishment, and made no perceptible improvement in appearance. It died on the 5th of October, about a month after its birth. The mother has other children, all well formed; there has before been no such malformation in the family; and, except that the mother had had a fall during her pregnancy, there was no apparent cause for such a deviation from normal anatomy. There was no previous syphilitic history. Unfortunately, I did not see the placenta.

I made a careful dissection of the muscles, vessels, and nerves of the malformed extremity, which had the following disposition:—

After dividing the skin over the front of the forearm, the most superficial muscle was the flexor carpi radialis, passing from the inner condyle towards the radial side of the hand. The tendon was inserted into one of two nodules of cartilage, representing the carpus, and did not reach the base of the index finger. The pronator radii teres consisted of two heads arising from the inner condyle, with the median nerve between them; the upper one was inserted into the oblique line on the radius, while the lower joined a muscular mass, which occupied the position of the flexor longus pollicis. Next in order appeared a well-defined muscle, arising from the inner condyle, from the radius below the insertion of the pronator radii teres, and from an intermuscular septum between this and the muscles on the back of the arm; below the muscle divided into two tendons, one passing to the finger, the other to the thumb, and being inserted into the last phalanges of these digits. A muscular mass, somewhat larger in volume than the muscle last described, and which was not divisible, took its origin from the oblique line and upper two-thirds of the radius; this being joined by the lower division of the pronator radii teres, terminated inferiorly in two membraneous tendons, one of which lost itself among the ligamentous fibres at the base of the metacarpal bones of the thumb, while the other spread itself over the sheath of the two flexor tendons. These were the only muscles in the front of the forearm.

On the outside of the forearm the supinator longus and brevis were traceable, but very thin and indistinct; the tendon of the first was lost in the fascia before reaching the end of the radius. The extensor carpi radialis longior was sufficiently distinct, its tendon passing to its usual insertion at the base of the index finger. The extensor carpi radialis brevior, as might be expected, did not exist, there being no middle finger for its insertion. The extensor communis was a thin, muscular strip, arising from the outer condyle, and having only one tendon for the index finger.

Arising from the external condyle and surrounding septa was a series of muscular fasciculi, which seemed to be intended for the extensor carpi ulnaris, there being, however, no ulna for its insertion, the muscular fibres, in place of forming a tendon, were attached along the inner border of the radius as far as its lower extremity. The anconeus was present in close relation with the upper portion of the last muscle.

The extensor ossis metacarpi pollicis, the extensors primi internodii and secundi internodii were distinct muscles, and were severally attached to their normal places of insertion. I could find no second extensor indicis. The adductor and short flexors of the thumb were well marked; the abductor pollicis arose from the metacarpal bone of the index finger instead of the middle; and the index finger had an interosseous muscle on each side of it.

In the upper arm, the biceps and coraco-brachialis had their usual attachments and relations. The brachialis anticus having, above its usual origins, divided below into several small tendons, some of which were attached in front of the inner condyle, while the rest were inserted into the head of

the radius. The triceps was inserted altogether into the posterior aspect of the condyles of the humerus.

The brachial artery (much smaller than usual) on entering the forearm gave off a small radial division and deep branches; then, without making any curve inwards, it accompanied the median nerve directly to the hand, where it supplied branches for each side of the finger and thumb. The median nerve was of considerable size; at the lower third of the arm it sent a division over the flexor tendons, to the inner and back part of the hand, while the principal trunk ended in four branches, one for each side the two digits. No trace of ulnar nerve was present. The radial, muscular, and internal cutaneous nerves were present as usual.

Of the bones, the ulna was entirely absent, and the radius was attached to the anterior surface of the external condyle in such a manner as to admit of very limited motion. The head of the radius seemed a compound between its usual form and that of the ulna, having a styloid process, which gave it the appearance of the lower end of the ulna. An arrangement of ligamentous fibres round the head of the radius formed an imperfect capsular ligament, which admitted of considerable rotation and extension, though both were much more circumscribed than in the normal condition of the joint. In the production of the restricted extension, the form and structure of the joint, with the displaced and adherent tendons, concurred with the external contraction observed before dissection. Only half the articular surface of the external condyle was covered with synovial membrane.

Two nodules of cartilage, one larger than the other, between the radius and metacarpal bones, represented the carpus. The thumb was supplied, as in normal anatomy, with a metacarpal bone and two phalanges, while the finger had its metacarpal bone and three phalanges. No abnormal condition was detected in any of the internal organs.

Remarks.—The malformation here described belongs to the order which M. Geoffroy St. Hilaire, the younger, has named "ectrodactylie," and the occurrence of similar instances is of sufficient rarity to render it interesting to the teratologist. Supernumerary fingers are common, and examples are not unfrequent of the congenital absence of fingers coexisting with some other malformation of the body. I have seen the number reduced to one in an acephalous fœtus; and it seems to be the rule that, in such cases of extreme monstrosity, the upper extremities especially become atrophied and distorted, often, also, the lower. Again, according to Geoffroy St. Hilaire, if the deviation in form does not proceed to such an extent as in the order last named, it is a rare occurrence to find a diminution in the number of fingers on one hand, without a corresponding malformation in other extremities: in other words, if one or more fingers be absent from the hand, a corresponding deficiency will very probably exist in the opposite hand, while the feet may, at the same time, be the seat of a like or dissimilar deformity.

One of the best illustrations of this is a case described by Vrolick in his Tabulæ, where a female child, well-developed in other respects, had the digits diminished to one on each upper extremity. No dissection is given. The cases of Weitbrecht and Bartolin, mentioned by St. Hilaire, and the remarkable hereditary examples of Béchet, are referable to the same symmetrical variety.

But, in the instances where the diminution of digits is confined to one extremity, there seems a natural division of cases which points to some modification in the force giving rise to these singular deviations. For instance, among the few cases recorded there are one or two in which the fingers coalesce, or are branched, the bones being confused and relatively misplaced. Again, there are several in which the arm is malformed and shortened, while the fingers which remain have intervals between them, and the breadth of the hand is not greatly diminished. Thus, in an embryo described by Geoffrey St. Hilaire, which had hare-lip, on the left hand there were three fingers, the middle one being composed of two united together. In an instance communicated to the same author by M. Martin St. Ange, the arm was shortened, and, of two fingers present, one was compound. Of the other cases observed by the St. Hilaires (father and son) in one the forearm was shortened, and in another there was a space between the index and little fingers as if amputation had been performed. Lastly, Meckel has seen almost the entire left foot wanting.

In the instances last alluded to, the force directing or giving rise to the malformation, seems to have acted in a transverse direction, lopping off fingers, and shortening the limb in some portion of its length, by acting at right angles to the axis of the arm, while, in the case I have described, the amputation seems to have been longitudinal, or parallel to the axis, depriving the limb not only of the three inner fingers, but, at the same time, of the inner half of the hand, with the ulna and its dependencies in the arm, as far as the elbow. The extremity thus becomes, if I may use the expression, not so much distorted, as degraded to a simpler form of prehensile organ, such as occurs in some of the lower orders of animals—the Crustacea for instance. Singularly enough, one of the most remarkable recorded instances I have met with of the reduction in the foot of the number of digits, is one described as "infans Chelis grammarinis loco pedum," in which two toes, separated by a deep cleft, were present on each foot, producing a crab-like appearance in the lower extremities. This instance is contained in a curious old book on Crabs, by Philip James Sachs, and published at Frankfort and Leipsic in 1665. Otto has witnessed a strictly analogous case to the one I have described, in which, instead of the ulna, the radius was deficient, and with it the thumb and all the fingers, except the fourth. This author has published a careful dissection of the malformed arm.

In reviewing the dissection detailed above, it was not uninstructive to observe the efforts which had been made to repair the loss of the absent bone of the forearm. The insertion of the triceps into the condyles of the humerus, of the brachialis anticus into the humerus and radius, were calculated to endow the arm, in its present form, with the greatest possible amount of strength, while, in the structure of the elbow-joint, a compromise seemed to have been effected between rotation and hinge-movement. In the hand, again, the thumb and finger were supplied with tendons from the same muscle, while the flexor longus pollicis was reduced to the function of a mere flexor of the wrist-joint. This arrangement must have given greater power to the hand, taking it as a whole, the digits acting simultaneously in the same direction, while the peculiar and independent action of the thumb must have been diminished, and necessarily rendered very imperfect.

16, Somerset-street, Portman-square.

MELANCHOLIA AND DELUSIONS, DEPENDING UPON PHYSICAL DISEASE.

REMOVAL OF TUMOUR BY THE ÉCRASEUR.

By Dr. HOOD,
Physician to Bethlehem Hospital.

A.S. was admitted into Bethlehem Hospital, July 7, 1856. Her previous occupation had been that of a domestic servant. She was unmarried, but the mother of two children, the youngest being two years old. The medical gentlemen who had previously attended upon her and certified to her insanity, reported, "a strong tendency to commit suicide; a continual desire to have her inside opened; a belief that she had no bowels; and that her character and temper had lately undergone a great change, evincing hatred to those she had formerly loved and esteemed." She was certified, also, "to be dangerous to others." On admission, her *physical* health was feeble, pulse weak, appetite capricious, bowels constipated; *mentally* she appeared suffering from continued melancholia with obstinate taciturnity. She acknowledged her despondency, and attributed it to her physical state, aggravated by the neglect of the father of her children. If conversation could be forced from her, it referred mainly to the state of her inside, which she considered had been misplaced, that her entrails had left her, and that she must be cut open. On these subjects she was unyielding, and became angry if any attempt was made to reason with her. The frequent constipation of her bowels to a great extent supported her impression that she had no inside. A report that she was suffering from a labial hernia, induced personal examination, when a large tumour was discovered arising from the posterior edge of the left labia, and extending to the buttock on the same side. She afterwards acknowledged her belief that into this sac her intestines had slipped. For the first fortnight after her admission, the ordinary moral treatment of the Hospital was employed; a

generous diet, wine, laxatives, and morphia in grain-doses at bed-time to procure sleep. During this time no improvement in her mental symptoms was manifest. Her despondency remained unrelieved, and the delusions unchanged.

Mr. Lawrence was then requested to see her, and after a careful examination of the tumour, and a full persuasion that no hernial sac existed, proposed to remove the tumour, hoping by this measure to cancel the delusions that appeared to depend so much upon its existence. The patient offered no objection to the operation, and on the 24th inst. her bowels having been prepared by aperient medicines, followed by an injection, Mr. Lawrence removed the tumour, which was of cellular structure, and weighed (after a large quantity of fluid had escaped) one pound and three ounces. The operation was performed by Charrière's écraseur, an instrument fully described by Mr. Spencer Wells in the *Medical Times and Gazette* of October 11th. It had a peculiar advantage in this case, diminishing materially the bleeding consequent on the operation. The patient pleaded so earnestly for chloroform, that it was administered, but it did not succeed in obtaining the desired insensibility. She, however, submitted to the operation with tolerable fortitude, but little blood was lost, and in a few hours she had some calm and refreshing sleep. The operation lasted about half-an-hour; the pain increased apparently with each click of the screw, by which additional pressure was produced around the point of constriction. For two or three days there was slight constitutional disturbance, a little feverishness and occasional involuntary passage of urine; these symptoms soon gave way to general improvement, though mentally she retained many of her delusions, and grumbled sadly at the pain that had been given her. On the 9th of August (sixteen days after the operation) she was reported to be "going on well as regards the operation, and her mental symptoms improved." Her appetite now increased, occasional aperient medicine was necessary; her spirits were good; and her conversation now cheerful and unrestricted, referred only so far to her late illness as to complain of smarting annoyance from the granulating surface of the wound. To the 17th of October her mental and physical improvement continued; she became robust, happy, and industrious. Beyond aperients the only medical treatment required was occasional sedative draughts at bed-time, and twice in the week nitrate of silver was applied to the granulations, which were a little too exuberant. On the 21st of October she returned to her family quite well.

The points in this case which perhaps merit the most attention are: "The power that the physical condition exercised over the mental state, in causing the melancholia and delusions." "The desirability of removing the cause before treating the effect," and thirdly, "the character of the instrument used by Mr. Lawrence." As regards the latter point, it may be worth while to state that much annoyance to the patient and difficulty to the operator in obtaining free access to the part was obviated by the mechanical arrangement of the instrument; that little more than an ounce of blood was lost during the operation; and that, after the removal of the tumour, although a surface of three square inches was exposed, no vessel was tied—a feature in an operation of considerable importance when the patient has shown great suicidal determination.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

CASE OF VESICO-VAGINAL FISTULA CURED BY A NEW OPERATION.

(Under the Care of Mr. BAKER BROWN.)

Deborah P., aged 22, was admitted into the Boynton Ward under Mr. Baker Brown, September 22, 1856. She stated that she was delivered of a still-born male child on July 15 by instruments, after being forty-eight hours in labour. She was shortly afterwards seized with an attack of fever. Eight days after the delivery she discovered that the urine dribbled away, after which it all seemed to pass through the wrong passage. On examination per vaginam, Mr. Brown discovered a fistulous opening close up to the os uteri, about the size of an ordinary director, and which instrument could readily be passed from within the bladder through the opening into the vagina. It appears that all the urine passes through this opening, and none through the urethra, in fact that she is never able to retain any within the bladder, even for a short time. The health of the patient having been carefully attended to, especially the removal of some long worms from the bowels, Mr. Brown determined, after consultation with some of his colleagues, to operate after a method devised by Dr. Bozeman of Alabama, in America, as clearly described by him in a small pamphlet, which plan appeared to Mr. Brown to offer greater advantages than any he had yet seen. Accordingly on the 15th of October, the patient being placed under chloroform, and put in the position for lithotomy, a leg being held by each assistant, a firm retractor being placed within the vagina, was held firmly backwards and downwards by a third assistant, and each side of the vagina being held back by two other retractors, the bladder was seized just at the juncture of its neck with the body by a strong pair of vulsellum forceps, and held firmly upwards and forwards by the right hand of the assistant holding the left leg. The fistulous opening was then with great difficulty brought into view, and the mucous membrane was divided by a sharp knife completely around the opening about the eighth of an inch in width. Three silver wire sutures 18 inches long were then passed by a needle held by the porte-aiguille, which Mr. Brown has described in his work; the two ends of each wire were then brought together by an instrument made for the purpose, thus leaving the parts in apposition. A silver button was then carefully passed over the end of each double suture, then a perforated shot was passed over each wire and pressed down upon the button, and then firmly pressed by a pair of long strong forceps. The wires were then cut off close to the shot. A piece of lint dipped in sweet oil was then introduced within the vagina, the patient placed in bed on a water-cushion, on her side, and a bent catheter with a bag attached to it was inserted within the bladder and allowed to remain there. Two grains of opium were given directly, and one grain every four hours afterwards for the first twenty-four hours, and afterwards one grain every six hours, and a generous diet, with wine, allowed daily. The lint was removed on the second day, and the vagina washed out night and morning with tepid water. All the urine passed freely through the catheter. On the 24th, Mr. Brown carefully removed the button and the sutures, and found the most perfect union had taken place throughout the whole extent. On the 26th, the bowels were relieved, for the first time, by castor oil and enema, and the catheter was removed for three hours, at the end of which time she passed urine comfortably, with no escape per vaginam. On the 27th the catheter was removed entirely, and she was allowed to sit up and walk about a little. On the 28th, she was up and about all day, was able to retain the urine for four hours, and to pass it well. On the 30th, Mr. Brown made a most careful examination, and found the parts firmly united, and without the slightest escape of urine, even after a long and tedious investigation. Mr. Brown observed that this method of operation had convinced him that cases hitherto intractable to treatment would be found to be curable by this operation.

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Medical Times & Gazette.

SATURDAY, NOVEMBER 15.

POISON-SELLING.

In the four years, 1848, 1849, 1850, and 1851, the annual deaths by poison ranged from 444 to 467. In the three following years, 1852, 1853, and 1854, the numbers were 370, 409, and 398. Dr. Farr states that there is reason to believe the decrease to be, to a certain extent, the effect of legislation, apparently alluding to the "Sale of Arsenic Act." He adds: "The sale of poisons requires to be placed under rigid restriction for the safety of the community." This is a proposition we have brought before our readers repeatedly, and every succeeding week confirms its truth. It is clear that something must be done in the next session of Parliament. The question is, What shall we do?

In France the chief safeguard is a restriction upon the sale of all medicines to properly-qualified *Pharmaciens*, who must prove a regular and general standard of proficiency before they receive their licence. In Austria all powerful medicines, though not commonly considered as poisons, are marked with a dagger (†) in the Pharmacopœia, and such medicines cannot be sold legally without *Medical* authority. Throughout Italy the sale of medicines and poisons is strictly limited to the licensed *Farmacista*. In Prussia, the smaller German States, and Sweden, the Government exercises a direct control over the manner in which the pharmacies are conducted and poisons sold. In Switzerland it is one of the functions of the Board of Health to take precautionary measures against the sale of poisons. The wholesale supply of poisonous drugs and preparations is permitted to properly-qualified retailers, but the latter are obliged to keep such substances in a separate part of the premises, and are not allowed to sell them without the written authority of a Medical man, a mayor, or a police-officer. The name of the purchaser must be entered in a book, and a label must be attached to the poison-bottle or paper, stating the "name and quality of the substance, the name and address of the vendor, the quantity sold, and the purpose to which it is to be applied." The purchaser must sign his name in a book, or have his mark attested, and this register with the written order for poisons must be preserved and produced on the requisition of the authorities.

It is very difficult to say how far we can imitate the despotic governments of the Continent by limiting the number of persons allowed to vend drugs, and granting a monopoly to the protected parties. Yet it is clearly the duty of Government to protect the public against the mistakes made by the careless or ignorant vendors of poison, and to provide means for impeding the designs of the secret poisoner, or for exposing and punishing him. However determined an opponent a man may be to the arbitrary interference of Government in matters of trade, it is quite clear that the sale of dangerous drugs and poison should be restricted by special regulations to trustworthy and competent persons. Admitting this, the next question which arises is, Who are these persons? Is every man who chooses to call himself chemist and druggist to be allowed to sell as much poison as he pleases, or shall we restrict the sale to those members of the trade who, having passed the Examination of the Pharmaceutical Society, are alone permitted to assume the title of "Pharmaceutical Chemist?" How far the present Council of this Society are disposed to grapple with this question, we may judge from an article in the last number of their organ, the "Pharmaceutical Journal," for November. They do not ask for more extended powers; they leave the protection of the public to public opinion; they endeavour to raise the position of their members, and to show the public that if they will deal with druggists who are not "Pharmaceutical Chemists," they must take the consequences. But they contend for free trade in Physic and Poison. They say—

"Nothing is more futile than the endeavour to fetter the Chemist with impossible regulations and troublesome precautions in the conduct of his business. It has been wisely remarked that, to an intelligent man, who is fit to be trusted with the sale of poisons at all, the consciousness of his responsibility, the dread of a coroner's inquest and its consequences, will be a much more effectual incentive to caution than the fear of a penalty; and with regard to matters of detail, those who have had practical experience are the best judges of the kind of precautions which should be adopted."

How far their own representative is conscious of his responsibility, and how much dread he has of a coroner's inquest and its consequences, may be estimated by another paragraph from the same article:—

"We cannot go so far as to recommend the adoption of a sweeping prohibition against the sale of poisonous substances in general. The following is an authentic copy of an order, with the omission of the names and addresses:—

"'—— October, 1856.

"'Mrs. —— will thank —— to send, well packed, so as to bear the railway carriage, to No. ————, the following articles:—

"'1 Quart Imp. of the Solution of the Acetate of Morphia, double the strength of Laudanum.

"'1 Quart of Laudanum.

"'1 Quart of Salvolatile.

"'1 Pint of Sp. Æther Co.

"'26 Dozen of the Acetate of Morphia Pills, ½ grain in each pill.'

"There are few Chemists having an extensive business who have not occasionally received similar orders."

We can only say that a Druggist or Pharmaceutical Chemist who would execute such an order without the authority of a Medical man has very imperfect notions of his duty, and that he should be held partly responsible for any intentional or accidental poisoning which was abetted by his culpable conduct in placing such quantities of poison within the reach of the disconsolate widows, love-sick maidens, or frail young women in a country house. It is quite clear that the Druggists must not be allowed to frame their own regulations for the sale of poisons. They must be placed under proper supervision, and the Government, through the Board of Health and local officers, must be made responsible for the public safety.

THE WEEK.

We have received a variety of letters on the subject of the Medical Benevolent College, complaining of the recent change which has been made in the charge for board and education of the boys in the School. In the original prospectus issued by the founders of the College, it was proposed, among other objects, to board and educate the sons of Medical men at an annual payment of £25; this sum was subsequently changed to £30, and on these terms many boys were sent into the School; but recently the charge has been again raised to £40; and many practitioners and friends of the College consider themselves aggrieved at what they consider to be a breach of faith on the part of the Council. The latter urge that, from a comparison of the annual cost of board and education at other similar scholastic establishments, it is impossible to fulfil their original promises, and that the actual cost of each boy to the Institution is £39 5s. On the other hand, it is asserted that the returns received from other establishments, a few years

since, justified the Council in fixing the maximum at £30; and it is further stated that the Directors of Christ's Hospital educate their boys, and provide them with all necessaries, including clothing, at an average annual cost of £30 10s. 7¼d. We regret very much that this discussion has arisen, as it has already caused some ill-feeling in the minds of many well-wishers to the College, and we are informed that many vacancies are likely to occur in the School at Christmas, unless the rate of admission is reduced, and several masters are added to the present staff. On the other hand, however, we should add that many boys are said to be waiting for admission at the advanced rates as soon as vacancies may occur. Feeling and knowing, as we do, the straitened circumstances of some of our Medical brethren, who nevertheless would willingly secure for their boys the benefits of a sound education at a moderate charge, we think it unfortunate that the Council should have raised the rate of payment, unless there has been some more stringent cause for the change than has yet been made public; and we cannot but agree with the following sentiments expressed by an esteemed Correspondent who writes to us on the subject:—"Let it be remembered that there is a class in our Profession whose daily avocations are pursued beneath the heaviest care, whose worldly wealth consists only in their own precarious life and exertions, and who, in case of sickness, are doomed to bear the borrower's withering fate. This is the class for whom we plead. Create a second Eton if you will, and make the school tripartite if you wish; but save a place for secret poverty, and do not take from one poor man the fondest hope a father can have, namely, to educate his child."

The Edinburgh College of Surgeons have just issued a new series of Regulations to be observed by Candidates for their Diploma. In many respects these regulations are to be commended, as tending to raise the standard of Medical education. Annual examinations in Latin and Natural Philosophy have been instituted, which the student may pass at an early period of his course of study; and a clause has been introduced "which will render necessary a certain amount of Practical Midwifery in future." The method of certifying to attendance on lectures is one which, with some modifications, might be followed with advantage in England. Details of this method will be found in another column. If the teachers in the London Schools would combine and agree to observe some such system, much good might be effected, and, as we have shown repeatedly, the Examining Boards might carry out the system of annual Examinations, much beyond Latin and Natural Philosophy, with manifest advantage.

By a recent mail from Australia we learn that, at the criminal sitting of the Supreme Court, held at Launceston, Tasmania, in the beginning of the present year, a Medical certificate was presented from a person signing himself a Doctor of Medicine, exempting a juror from attendance on the plea of sickness. The Under-Sheriff acquainted the Court that the person alluded to was not enrolled as a legally qualified Medical Practitioner under the Act. The certificate was accordingly refused, and the juror was fined £5. The Chief Justice observed that "it was not to be endured in the Medical any more than in the Legal profession, that persons should be allowed to practise until they had gone through the necessary rules and conformed to the law." The oracles of the law in Tasmania are in advance of the mother country in their distinctions between legitimate and illegitimate Medical practice. In that island all Medical men who propose to practise are required to present their diplomas to a Court of Examiners, whose duty it is, not to examine the candidate as to his professional attainments, but to inquire into the validity of his testimonials, and if these are found sufficient, he is enrolled as a duly qualified Practitioner. If they are not satisfactory, he is unable legally to practise in the colony, and if he perform any of the acts belonging to a Medical practitioner in expectation of receiving fee or reward, he is liable, on conviction before two magistrates, to pay a penalty of £100. There is a wonderful simplicity in this plan which is worthy of imitation.

While the examinations and reports of chemists and engineers are assuring us that the water supplied to the metropolis is purer and more abundant than it was before the passing of the Act of 1852, and that the several water companies are not satisfied with a bare compliance with the provisions of the Act, it appears that many of the rivers and streams of the country are being polluted by the drainage of neighbouring towns. The Thames itself is undergoing rapidly increased pollution at spots from whence the water-supply has recently been drawn. It is absolutely necessary that immediate measures should be taken to prevent the discharge of sewage into the Thames and its tributaries, and into the Lea and Ravensbourne, from towns above the present sources of supply. The public have suffered too long from drinking dirty water to submit to fresh pollution just as they are beginning to reap the benefits of a purer and more plentiful supply.

We announced some time ago that the Dentists were desirous of placing themselves in a better defined Professional position. A very influential portion of the dental body have been desirous that the College of Surgeons should institute an examination and issue a diploma in Dental Surgery. This proposition is still under the consideration of the Council of the College. In the meantime a Society has been formed on the model of the existing Medical Societies under the auspices of such distinguished Members of the Profession as Messrs. Cartwright, Nasmyth, Parkinson, Rogers, Salter, Saunders, Tomes, etc. Another Dental Society was formed at a public meeting held on Tuesday last, the gentlemen who attended wishing to unite the Dental Profession together, not as an offset from the College of Surgeons, but as an independent body, with a College of their own, on the model of the American Colleges. The object of both these Societies being the same, namely, the advancement of the Dental profession, it would surely be advisable to unite their forces for the common good.

Another step has been made in the matter of the Sewage of the Metropolis. Sir B. Hall has returned the last scheme of their Engineer to the Board of Works *unapproved*, on the ground that the outfall is too near the Metropolitan limits. The Board have already expressed their willingness to carry the sewage as far as Sea Reach, if the extra £1,400,000 would be granted by Parliament. They say, that London would be freed by carrying the sewage to Erith Marsh, and that it is not fair to raise a sum by Metropolitan taxation to free Erith, Greenhithe, and Gravesend. But the question is not one of expense; for if the river be purified and the sewage utilized, any outlay would secure not only a return, but a highly remunerative one.

MORTALITY OF WOMEN IN CHILDBIRTH.—In 1848, sixty-one mothers died to every 10,000 children born alive. Since that year the mortality has progressively declined as follows: 58, 55, 53, 52, 50, down to forty-seven in 1854. This is a gratifying result, and there can be no doubt that by further care and skill, and especially by training up a class of educated nurses, the deaths in childbirth may be largely reduced from their present high number, 3009.

OUR GREAT ONES OF THE PAST.

MEN OF THE BRITISH SCHOOL.—No. II.

JOHN ARBUTHNOTT, M.D., F.R.S.

THE life-history of the world medical is as peculiar for the variety of talent which it has produced, as for the choiceness and vigour of that mental commodity. There have been in medicine men of every form of thought and expression. Poets, from the Apollo who was god of physic as of song; voyagers of Bass Strait immortality; travellers striking out alone to mysterious Timbuctoo; historians of Smollett power; natural scientific inquirers of every possible cast; botanists, naturalists, chemists, geologists, astronomers; of the *omnium gatherum* series, a strange group, including prominent specimens of antiquaries, wits, novelists, mechanics, mathematicians, philanthropists, and politicians.

This variety of talent and of attainment on the part of the children of Esculapius, so distinguishing them from the children of other first men, is no accidental fact, but one springing out of a necessity. The reason of it is, that the study of medicine, in its widest sense brings the mind into communion with the whole world of knowledge; mind and body, matter and force, earth and space, time past and present, life and death, all nature—*φύσις*; all the laws of nature—*φυσιολογία*.

Place together the great souls that have adorned medicine; gather them in the mind's solitary appreciation into one man, and you who have done this shall have raised up a king of the philosophical empire. Peoples of all time owe something to the Esculapian brotherhood for direct service in the pure professional line; but this is a poor subject for congratulation when the labours of this brotherhood in the cause of all knowledge are fully conceived. The pure science stands far above the craft in this regard.

But although medicine in her catholicism of intellect has fostered so many and varied specimens of mental vigour and character, she has generally had one special person for the exhibition of one special gift; while, as if to be isolated more thoroughly from the world, many of her greatest men have, in the study of the higher problems of their science or in the pursuit of ennobling literature, sunk their craftmanship and left the gold-fishing business altogether to smaller and more selfish mortals. In England, for one country at least, there has been ever so strong a prejudice against the professional skill of "learned" doctors, that the Physician who has written a clever poem or made a great discovery in science, geography, or aught else, has too often therewith writ his last prescription. The shock administered to the public by Charles Bell, whenever he announced a new physiological argument, was so severe in its reaction upon his practice, that he was obliged to administer *quamprimum* a "practical" restorative, in the shape of a clinical lecture; and the fate of poor Goldsmith, who was not up to the clinical lecture manœuvre, every one knows. Inimitable society judges of men and manners, when will you absorb into your small craniums a little more common sense than is shown in this? You

cannot help the smallness of the cranium, it is certain, but you might into such space as you have got, put the best stuff, anyway.

The most absurd rule has its exceptions; and in a sea of folly common sense sometimes shows its head above water, like a huge whale that has come up for a breathing moment. So this rule, which regulates the estimate of Medical skill, has once or so had its pleasant course for a moment broken.

The most marked instance of a breakage of this kind is met in the life-history of the man now on the easel—JOHN ARBUTHNOTT—a man who, during a long life spent in the exhibition of mental traits as varied as they were powerful; who, while tossing in the whirlpool of political debate, while poetizing, classic-serving, antiquarian-digging, science-seeking, satire-writing, wit-making, and fun-distributing, managed, by hook or by crook, to write prescriptions, the physic of which the people and even royalty itself swallowed, with all good breeding, and with infinitely more faith in its efficacy than ever filled the conscience of the prescriber himself. Rather an anomalous character, John Arbuthnott.

Arbuthnott, though a London man, emigrated, as many other eminent Esculapians have done before and since his time, from Scotland. He was born at Arbuthnott, near Berrie (a small town in Kincardine, not far from Montrose), in the year 1667, in the month of April, day of the month uncertain. We are deeply indebted to the Rev. R. M. Spence, the present minister of Arbuthnott, for many of the particulars in this part of our narrative. Several of the biographers of Arbuthnott have made a sad mistake regarding his father, whom they have confounded with that famous nonjuring divine, Principal Alexander Arbuthnott, whom Jemmy the Sixth of Scotland and First of England confined to his college for disobedience. Our Arbuthnott's father was also named Alexander, and was the minister of Arbuthnott. Whether he was related to that noble family of Arbuthnott, the distinguished descendants of which still adorn our peerage, is not very distinct. Mr. Spence, inquiring for us on this point a few days since at Arbuthnott House, was kindly assisted by the Honourable Captain Arbuthnott in ascertaining whether anything could be found relating to the Doctor or the Rev. Alexander. The inquiry was fruitless; but it is possible that the father was related to the ancient family. At all events, the father of John Arbuthnott, from whatever family sprung, was, as we before said, a minister of the village of his name. He, too, like his former namesake, was rebellious; he refused to comply with the Presbyterian system, which was restored at the Revolution of 1688, and was obliged, in 1690, to resign his charge; he retired to the castle of Hallgreen, near Berrie, in the neighbourhood of which he possessed by inheritance the small estate of Kinghornie. John Arbuthnott was the eldest son of his family, his mother being one Margaret Lamy, of Muryton. He had one brother, at least, whom we shall have on the canvass again.

The manse in which Dr. Arbuthnott was born is not standing, but Mr. Spence's manse is built on its site. In the garden of the present manse are two yew-trees, said to be from four to five hundred years old, which must have been in existence when Alexander Arbuthnott was minister, and round the trunks of which his boys, perchance, often gamboled. The church, a very ancient building, where the said father preached and the boys listened, remains a curious relic of Roman Catholic times, but bearing in many mutilations the marks of that hot-brained zeal of Knox, which led, as our friend Mr. Spence happily says, him and his associates, "while they *re*formed religion to *de*form its temples." The church and manse stand in a prettily-wooded valley, through which the little river Berrie runs. Hallgreen Castle, to which Arbuthnott's father retired with his sons after his ejection from his cure, still stands. It is situated on the sea-shore in the neighbouring parish of Berrie, and about three miles from the Arbuthnott manse. At the time when the Arbuthnott family retired to it, it belonged to a Mr. Ruitt. It is now the property of James Farquhar, Esq. The estate belonging to Alexander Arbuthnott, Kinghornie, which, no doubt, came to him as the descendant of the younger son of the Arbuthnott family, now forms part of the property of the Baroness Keith.

According to an anonymous biographer, who wrote from Glasgow in 1751, and from whom most succeeding writers have taken their cue, John Arbuthnott's first step in life was to the University of Aberdeen, where, as the story runs, he studied and graduated in Medicine. We find that this statement is founded in an entire error, and that to the University of St. Andrew's is due the honour of being the Alma Mater of our great one. Here is the evidence for this statement. In the British Museum there is retained, among other of Arbuthnott's works, the title-page and first text page of a graduation Thesis on Animal Secretion, with an additional dedicatory note; part of which we here subjoin in perfect copy.

THESES MEDICÆ DE SECRETIONE ANIMALI,
Quas
Favente Deo Opt. Max.
Ex authoritate
D.D. Georgii Hamilton,
Principalis Coll. S. Leonardi
In Academia Andreæ-politana,
Et ejusdem Academiæ Rectoris magnifici,
Nec non
Amplissimi Senatûs Academici Decreto,
Pro Gradu Doctoratûs in Medicina consequendo,
Publico Examini subjecit
Joannes Arbuthnot Auct. et Resp?
In Scholis Marianis.
Ad diem 11 Septembris, 10 a.m.

Adolescenti ingenuo
Edwardo Jeffreys,
Collegii Universitatis
Apud
Oxonienses
Superioris ordinis commensali
Theses hasce
D.D. Auctor.

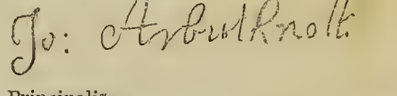
It will be observed that this document does not bear the date of the year, and is, therefore, in so far, imperfect. To obtain further facts, we wrote to our friend, Dr. Day, now Chandos Professor at St. Andrew's, and through him obtained the assistance of the learned Secretary to the University, the Rev. J. M'Bean, M.A., who, after a careful research in the records of the University, has found not only the registries of the day when Arbuthnott graduated, but also his autograph, which, with the registries, we present to the reader as we have received them.

11mo Septembris, 1696.

Quo die generosus hic, cujus nomen infra subscribitur Gradum Doctoratus in Medicina (præstitis præstandis), honorem hunc conferente R. D. Mo. Alexr. Monro D. prælecto Coll. S. Salvatori nostri ac gradum promotore.

11mo Septis., 1696.

Quo die generosus hic cujus nomen infra subscribitur Medicinæ studiosus (præstitis præstandis) in album Academiæ receptus est.



Georg. Hamilton, Coll. Leonard. Principalis.

It thus comes out clearly that Arbuthnott graduated on the 11th of September, 1696, *i.e.*, in his 29th year, and that we have historical right to claim for the St. Andrew's Doctors John Arbuthnott as their brother. (a)

A few years after the ejection of their father from his pastorate, the two brothers Arbuthnott left home to carve their ways through the world. The younger one went on the Continent. Master, we beg his pardon, Dr. John, with his new university honours fresh upon him, made his way to all-absorbing London. Both embraced their father's political principles. On reaching London, the Doctor was received in the house of a Mr. William Pate, a woollen-draper, and commenced to work for the bread and cheese of this life by teaching mathematics, in which he was a proficient. At this period, 1695, Dr. William Woodard, a Physician and Geologist, brought out a work on the "Natural History of the Earth," which created in its day almost as great a furor as the "Vestiges of Creation" has in ours, though a furor of a somewhat different character. Woodard was a remarkable man, and after his death was satirized for his practice of administering to his patients whey and oil in immense quantities. He died in 1728, and left a valuable collection of fossils to the University of Cambridge, and an endowment for a chair of geology. Woodard, in his work above-named, dwelt on the successive deposition of strata, and invented a theory about the formation or structure of the earth on this basis. In 1697, Arbuthnott brought out his first literary work, in answer and in opposition

(a) It will be observed that Arbuthnott spells his name with two final t's. His cotemporaries were accustomed to spell it with one, an error into which the Arbuthnott family have never fallen.

to Woodard. The essay was entitled—"An Examination of Dr. Woodard's Account of the Deluge." It is a scholastic treatise, and written in good tone, but in these days, when geological science has so changed, it is difficult to comprehend the importance of the controversy. The philosophy of Steno was here compared by Arbuthnott with that of Woodard to the advantage of Steno, while an abstract was added of a book by Angostina Scilla. Whichever might be right of the combatants, Arbuthnott's work did him immense service, and brought him early into public notice. He looked out now for Medical practice as an additional means of subsistence, and three years later enriched literature by the publication of an admirably argumentative work on the "Usefulness of Mathematical Learning."

The essay on Mathematics was written in the form of a letter to a Gentleman in Oxford. It bears date November 25th, 1700. In it the author argued for the application of Mathematics, on the ground that the study of this science accustoms the mind to attention, gives it a habit of close and demonstrative reasoning, and frees it from prejudice, credulity, and superstition. He praises Borrelli and Steno for their researches, and says that the only organ of the animal body whose structure and manner of operation are fully understood, has been the only one which the geometers have taken to their share to consider. The organ he refers to is the eye, the use of which, in his opinion, Kepler first found out solely by his geometrical labours.

Arbuthnott was now fairly before the world. He had evidently been married for some time, since his second son, George, was born in 1703. Who Mrs. Arbuthnott was is not recorded, but one gathers from his letters that she was an excellent wife, and that their wedded life was as happy as it was distinguished. He had bestowed on him in 1704, on St. Andrew's day, the Fellowship of the Royal Society. A lucky accident now threw him into the favour of royalty. Being at Epsom, at a time when Prince George of Denmark was also there, he was called in to see the Prince, who was taken ill unexpectedly. His skill, attention, and learning fascinated His Royal Highness so much that, in the next year (October 30th, 1705), by special command, and in consideration of his good and successful services to Prince George, he (Arbuthnott) was elected Physician-Extraordinary to the Queen, Anne. We find no record of moment concerning him from this time until the year 1709, when, upon the indisposition of Dr. Hannes, he was appointed, in the month of November, Physician in Ordinary to Her Majesty, and went to reside in a house in St. James'. Next season (April 27, 1710), he was made a Fellow of the Royal College of Physicians; and in this same year he read an interesting paper at the Royal Society. It is the only specimen from his pen recorded in the Philosophical Transactions.

The paper will be found in Vol. XXVII. of the Transactions, page 186. It seems to have been read at an October meeting, and is entitled

"An Argument for Divine Providence, taken from the Constant Regularity observed in the Births of both Sexes."

It occupies but five pages. The argument is, that upon the exact balance maintained between the numbers of men and women it is provided that the species shall never fail nor perish, since every male has his female of a proportionable age. Taking, as a line of demonstration, a mathematical view of his subject, the further conclusion of the author is, that the equality of males and females is due to "art," not "chance," there seeming to be no more probable cause for the equality "than that in our first parent's seed there were at first formed an equal number of both sexes." There is, however, he admits, a slight difference in the numbers born of the two sexes; for inasmuch as the mortality of males is greater than that of females, so are more males born than females; while the equality of men and women is well nigh perfect. In illustration of the regularity of the sexes, the paper included a table of the births of the two sexes in London from the year 1629 to 1710.

The practical and social result to which Arbuthnott came was this—"that polygamy is contrary to the law of nature and justice, and to the propagation of the human race; for where males and females are in equal number, if one man takes twenty wives, nineteen must live in celibacy, which is repugnant to the design of nature."

It will be seen that in this inquiry Arbuthnott anticipated a modern statistical disclosure. We shall see in the sequel that he anticipated many other important scientific works, which are thought specially to belong to our own time.

The court Physician, in his St. James's residence, was now advanced to a position which he had, one would think, scarcely looked for in his most hopeful hours; and the happiness of his life was not a little increased by the many valued friendships which he had the good fortune to secure. His closest friends were Pope and Swift. They met nightly, a glorious party. Arbuthnott did the witty and classical vein, Swift the austere and heavy satirical, Pope the sharp and sarcastic. Meantime, they were all earnest friends. Swift says of Arbuthnott, "He has more wit than we all have, and more humanity than wit;" and, referring to his professional skill in another place, remarks, "Arbuthnott knows his art, not his trade." The only reflection on his incapacities is that he cannot walk; "he is a man that can do everything but walk." This is Swift again, as he is introducing the Doctor for the first time to Pope.

In these times an important political club existed, of which Harley, Earl of Oxford and Lord High Treasurer, Swift, and Arbuthnott, were members. They were sixteen in number, dined weekly at each other's houses, supported the Tory interests, and called themselves brothers. Hence Arbuthnott, in writing to Swift, calls him brother. Harley he styles as "the dragon," a *sobriquet*.

The letters of Arbuthnott to Swift, at this period, are very interesting. He tells how he attacked Lord Bolingbroke for wine for Swift, how he will pay bills for him on demand, and explains his own annoyances at court. Mrs. Arbuthnott, with a woman's usual anxiety, wishes the coming Dean were married.

Thus these wits and critics went on gaily; they got up clubs which bore the name of the proprietor of the house of meeting; they laughed heartily at the absurdities of the world in general, and of the literary world in particular; and they plotted a great work, a satire "On the abuse of human learning in every branch." The first part was drawn out under the title of "Memoirs of Martinus Scriblerus;" it was couched in the Cervantes style, and was intended to be in no way deficient in pepper.

In a letter from Arbuthnott to Swift, dated Kensington, June 26th, 1714, he says, referring to "Martin Scriblerus," "Pray remember Martin—he is an innocent fellow—The ridicule of medicine is so copious a subject that I must only here and there touch on it. I have made him, Martin, study physic from the Apothecaries' bills. Martin is made to determine the question of the weight of ancient men by the doses of physic that were given to them. There is a map of diseases for the three cavities of the body and for the external parts. Ratcliffe is made to rule this empire. Another point of satire is taken from the Greek Physicians who set up a sensitive soul as a first minister to the rational. This is the Archæus of Helmont and the Microcosmetor of Dolaus. These ruling powers have their genii under them who are made to fight."

In the same letter he adds a weak attempt at poetical witticism, got up on going to bed. Think of any other man than Arbuthnott writing such stuff to the violent Dean!

POETRY ON DUST.

"The dust in smaller particles arose
Than those which fluid bodies do compose;
Contraries in extremes do often meet,
'Twas now so dry that you might call it wet."

Only the first part of the "Memoirs of Scriblerus" appeared, and this many years afterwards. But in the project was embodied much of the subject-matter of Swift's "Gulliver," and Pope's "Dunciad." Johnson commenting on the "Memoirs of Scriblerus," in his life of Pope, expresses no regret that the design was never completed. Speaking of the published part, which even in his time was well nigh forgotten, he says: "If the whole may be estimated by this specimen, which seems to be the production of Arbuthnott, with a few touches perhaps by Pope, the want of more will not be much lamented; for the follies which the writer ridicules are so little practised that they are not known; nor can the satire be understood but by the learned; he raises phantoms of absurdity and then drives them away. He cures diseases that were never felt.

"For this reason, this joint production of three great writers has never obtained any notice from mankind; it has been little read, or when read has been forgotten, as no man could be wiser, better, or merrier, by remembering it.

"The design cannot boast of much originality; for, besides

its general resemblance to Don Quixote, there will be found in it particular imitations of the history of Mr. Ouffle."

The design of the "Memoirs" was broken up, owing to the altered position of matters on the death of Queen Anne, August 12, 1714. Arbuthnott attended the Queen through her last illness, and Mead was called in consultation. His letter to Swift about his "dear mistress's" death, is most touching. "Sleep," he says, "was never more welcome to a weary traveller, than death was to her." He writes this letter with tears in his eyes.

On the succession of George I., Arbuthnott lost his court appointment, and was obliged to remove from his house in St. James's. Mead gained the royal favour, and was now court-physician; but the friendship between him and Arbuthnott was in no way changed by the change of circumstances. Both were true men and honourable.

Dispirited by his misfortune, Arbuthnott now paid a visit to Paris to see his brother, who resided there. He stayed six weeks in Paris, and six in Rouen; leaving his two girls in France with their uncle, "which was his chief business;" he returned to London and took a house in Dover-street; "hoping still," he writes, "to keep a little habitation warm in town, and to afford half-a-pint of claret for his old friends."

Arbuthnott was not the man to be long dispirited; he resumed practice in his new house, and had the confidence of the public and the Profession freely bestowed on him. There is, however, no note whatever of the amount of his income; but his practice seems to have been chiefly among the upper classes. Lord Chesterfield prided himself on being, not only his patient, but his friend. He retained the friendship of his old acquaintances, Garth, Friend, Swift, Pope, while the amiable poet Gay presented himself as an additional comrade. Friends met at his house frequently, and little country parties were got up, of which the Doctor was always chosen as the captain, from his seniority. He was very exacting in his orders on these occasions, and poor Pope had a great deal to put up with; even his night-dress had to be smuggled, so that he might be sure of having it with him.

No adventure of any moment ever occurred on which Arbuthnott did not write a pleasant essay. These productions were all written in a great folio paper book which he kept in his parlour. So little, however, did he care for them after they were put together, that often, when he was writing out the last sheets of his folio, his children were tearing out the first without hindrance for use in the manufacture of kites. Thus, what to us now would be most valuable documents were scattered literally to the winds.

In 1715, conjointly with Gay and Pope, Arbuthnott brought out a comedy, called "Three Hours after Marriage." The piece was brought on the stage in 1716, to prove a dead failure. The plot was bad, and the sentiment not super-excellent. The next year, Captain Breval, a man who had done much service for the Duke of Marlborough, wrote, under the cognomen of Joseph Gay, a farce called "The Confederates," with a ridiculous caricature print of the authors of the "Three Hours after Marriage Comedy." Pope, never forgetting an attack, trounced poor Breval for this in the "Dunciad:"—

"Breval, Bond, Besaleel, the varlets caught."(b)

In 1717 the poet, Prior, got into political and pecuniary difficulties. To assist him, the kind hand of Arbuthnott was foremost. In combination with Pope, Gay, and Swift, he got up and carried out a subscription for the publication of the poet's works.

About the year 1720, Hogarth, then a young man, entering one evening into Button's coffee-house, fell athwart a distinguished trio, Arbuthnott, Garth, and Pope. Charging them at the point of his pencil, he brought them before the world in inimitable caricature. Nobody knows in what part of the universe Hogarth may now be, but our friend Mr. Squibb, who, as everybody knows is living even at this remote period in Montague-place, has given us permission to take from his valuable picture collection a copy of the Hogarth work. We are thus enabled, at the head of this history, to introduce our readers to the hero of the piece, and to his immortal coffee-house companions. The figure of Pope is to the right of the sketch; the seated figure is Arbuthnott; Garth stands to the left, with his gold-headed cane. The drawing has been admirably copied for us, even to its defects, by Mr. Orrin Smith.

To be continued.

(b) Dunciad, Book II., ver. 128.

REVIEWS.

BOOK NEWS.

The *Seventeenth Annual Report of the Registrar General* has just appeared. In addition to the usual report of births, marriages, and deaths, this volume contains a very able letter by Dr. Farr on the causes of deaths in England in 1854, and an account by the same author of the Cholera epidemic of 1853-4, tracing the rise and progress of the epidemic, comparing the two epidemics of 1849 and 1854, and showing the influence of locality, age and sex, elevation and impure water, on the mortality. This is a most valuable contribution to Epidemiology.—The General Board of Health have just published *Reports* to their President on the *Metropolis Water Supply*, one by Dr. Hoffmann and Mr. Blyth on the Chemical quality of the water, and the other by the Superintending Inspectors on the Works of the different Water Companies. The Chemical Report shows that in 1856 the waters supplied to the Metropolis did not contain more than one-half of the organic matter which was present in the year 1851; and the Inspectors report a very commendable anxiety on the part of the Companies to comply with the provisions of the Act of 1852. Several of the introductory lectures, of which an account was given in our number of October 4, have been printed by request.—Dr. Parkes's *Self-training by the Medical Student* is an earnest and elegant address, which will well repay perusal.—In Mr. De Morgan's address, the present system of Medical education is reviewed in a spirit completely in accordance with the views we have maintained on this point for some years.—Mr. Elkington, at Birmingham, speaks of the emoluments of the Profession and the means of attaining them; and Dr. Haines at the Grant Medical College, at Bombay, delivers remarks on the objects of Medical study and the means of pursuing them, which would have been equally acceptable in London.—Dr. Bowen Harrison contributes a pamphlet on *Perforating Ulcer of the Stomach and Bowels*, which, though not adding much to our previous knowledge of the subject, is sensible and practical.—Dr. Halford has published the results of experiments and observations on the *Action and Sound of the Heart*. They are numerous and ingenious, and lead to the following conclusions:—"When the first sound is heard the ventricles contract, and the auriculo-ventricular valves are made *tense*, and completely separate the cavities of the ventricles from the auricles; the tension of these valves produces the first sound. When the second sound is heard the ventricular systole has ceased—the aorta and pulmonary artery have reacted on their contents—the cavities of the ventricles are separated from the systemic and pulmonary systems by the closure of the semilunar valves, the *tension* of which produces this sound. This is the true mechanism of the valves, and when it suffers any deviation there is alteration of sound."—The 48th Part of the *Cyclopædia of Anatomy and Physiology* contains the conclusion of the article on the Tegumentary Organs by Mr. Huxley, an article on the Ruminantia by Dr. T. Spencer Cobbold, and the long-delayed conclusion of the article Ovum by Dr. Allen Thomson. The subscribers to the work will be gratified to learn that Part XLIX., containing the article Uterus, is in the press, and that it will be published at the same time as Part L., which will complete the *Cyclopædia of Anatomy and Physiology*, and comprise a copious index to the whole work.—Mr. Rhind has brought out a little book on *Egypt*, which will be useful to those who wish to know something of its climate and resources as a winter resort for invalids, though he might easily have obtained fuller and more trustworthy meteorological tables than he has given in his meteorological notes.—Mr. Churchill has published De la Rue's *Medical Memorandum Book and Indelible Diary* for 1857. It is very handsomely got up, and the introductory information, statistical and practical, adds materially to its value. It is a very great improvement upon other Medical pocket-books.—Lastly, Mr. Grove, of Wandsworth, has sent us specimens of a weekly Register, Case Book, Ledger, and Cash Book, which appear to be extremely well adapted for the use of General Practitioners. Mr. Grove proposes to have sets of the books prepared, if he find a sufficient number of his Medical brethren inclined to adopt the system.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON MUGUET.

By Professor TROUSSEAU.

Muguet, characterised by numerous small, white, confluent caseiform spots appearing on various parts of the buccal cavity, is so called from the flower of the *muguet*, or lily of the valley. It must not be confounded with aphthæ, for there is no vesicular eruption present. Whatever may be its reputed microscopic characters, the important point to bear in mind is, that it is the result of irritation.

M. Trousseau describes the affection under three forms:—1. A form in which it appears either in the adult or the child during the course of a general disease, as phthisis, ascites, cancer, chronic diarrhœa, prolonged suppuration, or after much suffering. It is then of the worst augury, the buccal inflammation being but the expression of a very alarming general condition, that will soon have a fatal termination. It is seen in children in chronic affections of the alimentary canal, of the skin, or of the pulmonary mucous membrane, and is as fatal a sign as in the adult. Inanition, whether the result of disease or not, may give rise to it, and Valleix has declared, that 11 out of 12 children so suffering died; but it must be remembered that his patients were foundlings, often exposed to want and cold, and dying literally of hunger. 2. The form of *muguet* due to buccal phlegmasia, and which, confined to the point at which it arises, is devoid of danger, save when it prevents the child taking sufficient food. Either, from the nipple being ill-formed, or other cause, sucking is difficult, and the mouth becomes irritated and inflamed, and great pain is produced; but it is purely a local affection, and yields to appropriate treatment in from forty-eight to seventy-two hours. 3. There is a form which may be called mixed, and which is marked by a predominance of the buccal affection, coinciding with a considerable affection of the alimentary canal. Thus, it is not rare to find the disease invading the mouth, and soon after become accompanied by vomiting, diarrhœa, erythema of the buttocks,—in fact, for a certain amount of inflammation to prevail from the mouth to the anus. The deposit is found on the tongue, pharynx, and œsophagus, but never in the intestinal canal, and indeed nowhere except where epithelium is present.

The treatment of the mere local form of *muguet* is simple, and is best managed by applying equal parts of honey and borax seven or eight times daily. It often disappears with remarkable rapidity; but if we are content with the removal of the white spots, they will soon return again, and will continue to do so until the buccal inflammation itself is cured. When the *muguet* resists the borax, a mixture of chlorate of potass and honey or syrup should be employed, with which the caseiform spots should be touched by means of a pencil. If the disease does not yield to this we must apply in the same way a solution of one part of nitrate of silver to ten of water, cleaning the mouth out afterwards by means of a syringe and water. To this the disease will certainly give way. When the affection is only local, after the white spots have completely disappeared, and cathartics or modifying medicines have been administered, the child is well again; but in other cases, the disease which originally induced the *muguet* still remaining, relapse will occur. When there only remain the cutaneous and vesicular lesions which have accompanied or followed the *muguet*, we may replace the borax or chlorate of potass by oxide of bismuth, and powder with it the mouth, the buttocks, and the anus. When *muguet* is connected with a bad state of the general health, of which we may judge by a careful examination of the alimentation, and the nature of the stools and matters vomited, a good nurse becomes of the first necessity. In wealthy families, young women of habitually delicate health, quite incapable of suckling, will sometimes persist in the attempt. The secretion is insufficient, the breasts are empty, the mouth of the child becomes inflamed, and it suffers from vomiting and diarrhœa. However displeased the mother may be at having the child taken from her breast, do not hesitate about it, but order a nurse to be procured; for although an infant will support deficient diet for some days, yet when you find that it has *muguet*, that there is erythema of the buttocks, you must cut the matter short, for your little patient is hovering between life and death.

When *muguet* seizes a child placed in good hygienic conditions, and nourished with good milk, but who suffers from intestinal phlegmasia, alkalies are indicated. Chalk, suspended in syrup, and administered three or four times a day, is very useful, as is also the case with lime-water given in quantities of ʒiv. to ʒvi., just before suckling. Sub-nitrate of bismuth is another very efficacious agent, given in large doses, and nitrate of silver may also be given, either internally or as an enema.—*Gaz. des Hôp.*, No. LXXIV.

EXCERPTA MINORA.

Irritable Excrescence of the Female Urethra.—For this Dr. Taylor recommends pure acetic acid or the following formula, which he has found more useful than nitrate of silver:—℞ Hyd. bichlor. ammon. mur. āā ʒj., sp. vini gallici ʒiv.

New York Journal, July.

Collodion in Variola and in Erysipelas.—Dr. Harris states that great advantage has been derived from the following in variola:—Collodion ʒiii., tr. kino ℥j., tr. ferri mur. ʒij, Commencing about the fourth day, it is applied with a pencil to each vesicle or confluent patch, once or twice daily, for three, four, or five days, until the surface assumes a smooth and polished appearance, and desquamation is about to commence. It is a far better ectrotic than simple collodion or any other dressing. He also treats erysipelas with success by a mixture of equal parts of collodion and tr. of iodine, which forms the best topical application he has yet tried. By its aid and that of heroic doses of tr. ferri mur. he has found the disease a far less formidable one than heretofore.

New York Journal, July.

Rupture of the Vena Cordis Media.—Dr. Schabert gives a remarkable example of the cases in which great organic mischief of the heart is compatible with long life and a condition of tolerable well-being. A country baker, a thin, morose-looking man, 56 years of age, very temperate, and of active habits, fell down dead while trying to lift a large iron harrow from his cart. In the pericardium five ounces of blood were found, proceeding from two very large ruptures of the vena cordis media. All the aortal valves were in such a complete state of ossification, that the smallest goose-quill could not be passed through the orifice. The heart itself was normal. He only complained during laborious work of some "pressure on the chest."—*Med. Zeitung*, No. XXVIII.

Local use of Chloroform in Tetanus.—Dr. Hinkle relates an interesting case, in which symptoms of tetanus came on after a wound of the finger by the jaws of an eel. Various means of treatment were resorted to, but that which gave most relief, and to which recovery from a very dangerous state seemed chiefly due, was the application of considerable quantities of chloroform along the whole course of the spine.—*Amer. Journ. Med. Sci.*, October, p. 361.

Fatal Reduction of an old dislocated Humerus.—Dr. Blackwell relates the case of a tall, athletic man, aged 50, in whom a dislocation of the head of the humerus downwards and inwards took place sixteen weeks before. At about the tenth week, an attempt at reduction had been in vain made with the aid of pulleys. On the present occasion, after submitting the patient to chloroform, manipulations had been continued, with very little violence, for about ten minutes, when a tumefaction appeared in the pectoral region, which, as the pulse stopped at the same time, was attributed to rupture of the axillary artery. The vessel was secured high up, and next day the swelling had nearly disappeared; but fatal secondary hæmorrhage occurred two or three days after.—*Ibid.*, p. 571.

PROVINCIAL CORRESPONDENCE.

IRELAND.

[From our Dublin Correspondent.]

DUBLIN, NOVEMBER 11, 1856.

Dr. Neligan opened the Session at the Dublin School of Medicine, Peter-street, with some remarks upon the present state of the question of Medical Reform, and briefly alluded to the results of the recent conference in London at which he had assisted. The main portion of his very useful lecture

consisted, however, of sound practical advice to the students, addressed to them in reference to their "duties as students," and their "duties as Practitioners." The lecture was delivered altogether *extempore*, and was listened to with deep attention by a numerous auditory. The students present seemed deeply impressed with the value of the advice they had received.

Mr. Ledwich commenced the regular business of the Session at the "Original School of Medicine," with a lecture which was delivered in the style of flowery eloquence for which the Lecturer is, on such occasions, remarkable. Mr. Ledwich took for his text the words, "Help one another," a simple sentence on the acknowledgment of the influence of which depends, he observed, "the root of all commercial policy, of civil and political government, of social connexion, and the profitable investment of intellectual labour in those professional pursuits that either minister to the natural reality or acquired habits of the entire community." The address, from its nature, scarcely admits of condensation; it will, however, I understand, be published *in extenso*.

The first meeting for the discussion of subjects connected with practical Medicine of the Association of the College of Physicians of Ireland, took place on the first Wednesday in the present month, when communications were made by Dr. Neligan, and Dr. Henry Kennedy. Dr. Neligan's communication consisted in an account of a singular case in which a human hair had become accidentally knotted around the second toe of an old lady so tightly as to produce strangulation of the ungual phalanx. At the time Dr. Neligan saw the case, the strangulation had existed for three days; and the toe was very much swollen, inflamed and painful. With some difficulty he was enabled to divide the hair with a sharp pointed pair of scissors, when the swelling, and consequently the pain rapidly subsided. In remarking on the case, which he said, he brought before the association, chiefly in consequence of its singularity, he alluded to a paper by Dr. J. Weisse, Director of the Hospital for children at St. Petersburgh. In it a nearly similar occurrence in young children, was described under the name of dactylostrangalis (strangulatio digitorum).

Dr. Henry Kennedy detailed the case of a young man, aged 18, who was admitted into Sir Patrick Dun's Hospital, labouring under scarlatina, attended with intermission of the pulse; as the disease advanced the intermission increased, and was accompanied by very great irregularity of the heart's action. Both these symptoms subsided *pari passu* with the declension of the disease, and the only cause which Dr. Kennedy could assign for their occurrence was the fact that the patient had, previously to his illness, been an inveterate smoker.

The first meeting, for the present session, of the Royal Irish Academy, was held last evening at their house in Dawson-street, the Rev. J. H. Todd, D.D., President, in the chair. Mr. Wilde gave a most interesting account of a MS. of Dr. Willoughby, one of the original Fellows of the King and Queen's College of Physicians, written in 1690, on the subjects of "the Bills of Mortality and Increase of People in Dublin, the Distempers, Air, and Climate of this Kingdom, also of Medicines, Physic, and Surgeons, and Apothecaries." Your readers are aware that Mr. Wilde has devoted much time and attention to the subject of Medical biography, and in particular to the history of Irish Medicine, and that we are indebted to him for an account of the Dublin Philosophical Society, established in the year 1684, for the most part by Medical men; Willoughby, the author of the MS., being its first Director. The present communication will be considered by the learned in the Profession as a most valuable contribution to Medical literature at a period when it is most defective.

GENERAL CORRESPONDENCE.

THE SALE OF POISONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Much has been said lately about the indiscriminate sale of poisons and drugs; angular bottles, with other things, having been proposed as a safeguard to the public; why not strike at the root of the evil at once, and give the same power to the London Apothecaries' Company which is given to the Apothecaries' Hall of Ireland? By looking at an advertisement from that body in your last number you will see that, "According to act of Parliament, no person can be taken or employed as an apprentice, assistant, or shopman to an Apothecary, and no person can open a shop or act in the art and mystery of an Apothecary within the kingdom of Ireland until such person shall have been examined and obtained the certificate of the Court of Examiners of the Apothecaries' Hall of Dublin." "It is also provided, that if any one shall take or employ any person as an apprentice, assistant, or shopman, or shall open a shop or wareroom for the retail of medicine, or practise the art and mystery of an Apothecary within the kingdom of Ireland, without such person having obtained the proper certificate for the purpose, so such person offending shall for every such offence forfeit the sum of twenty pounds, to be recovered by the Apothecaries' Hall of Dublin." Now, why not give the Apothecaries' Company of London the same power, and let the Medical Practitioners support them? Here you strike at the root of the evil at once, and give the power of dispensing life and death to a class who may be trusted, and not, as it is at present, to those who have undergone no examination as to their knowledge of drugs and dispensing, although they have usurped the place of the legitimate Apothecary or Druggist, and with it all the gains. In the proposed new Medical Bill, I would suggest that the Apothecaries, conjointly with the Physicians, should form an examining body, and be empowered to examine all Chemists and Druggists, and that all assistants or shopmen should be compelled to take out a licence under a penalty. Perhaps some of my Medical brethren of more standing and experience may join in my views. A proposition should come from some of us, as it is evident the public will require some laws to restrain the indiscriminate and reckless sale of poisons, and the ignorance and carelessness in dispensing medicine by unqualified and ignorant persons. The Apothecaries' Company of London, although much vilified, has done more to raise the standard of education for the Medical Profession than any other body. Give them, then, the same power by Act of Parliament, as the Irish Apothecaries' Company, to sweep away the abuses which have crept in, and the public and Medical Profession will have no longer any cause of complaint.

I am, &c.

An Apothecary and Surgeon.

Worthing, November 8, 1856.

ON THE EFFECT OF CHLOROFORM UPON THE RESULTS OF SURGICAL OPERATIONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Mr. Holmes' office, as Registrar to St. George's Hospital, gives authority to the statements and opinions contained in his letter in the last number of the *Medical Times and Gazette;* and the reply to which he is entitled on this account will give me, besides, an opportunity of briefly noticing some points omitted in my recently-published paper on chloroform.

To commence with his facts, or statements. He sees nothing surprising in the circumstance that lithotomy should prove fatal in half of the adult cases operated upon in the London Hospitals, but is only surprised that I should not know (what he asserts to be) the reason of this great mortality, namely, that the more favourable stone cases are withdrawn, in order to be the subjects of lithotrity. I confess I had not examined the statistical returns with respect to this point, as the knowledge that Sir B. Brodie had, in his recent paper, referred to them for the purpose of showing the greater mortality of lithotomy as compared with lithotrity; and that Surgeons do not, as a rule, select the best cases for the latter operation, rendered such an examination unnecessary. On examining them since, I find that the cases of lithotrity at the London Hospitals have been too few sensibly to affect the calculation which I have made; and that the best cases have not been selected. Two or three are mentioned as cases in which the prostate was much diseased; and in the only adult case of lithotrity, occurring in the third or last year (October, 1855), the patient was 74 years of age, and "of so feeble a condition that it was not thought advisable to perform lithotomy."

So much for Mr. Holmes' facts; his opinions are not more correct. He finds fault with the shortness of the period of three years, from which I have deduced the present rate of mortality in the London Hospitals, and reminds the reader that this is not the whole time that has elapsed since the introduction of chloroform. Every reader knows this, though,

perhaps, he may think that it has not been universally employed in large doses, for a much longer period; and those who have read my paper are aware that I was limited to three years, because my statistical returns had the same limit. Though I am of opinion that this period is sufficient to determine the point, considering the wide field of observation furnished by the London Hospitals, I should be glad to have it extended, in order that every one may be convinced. On this account, I was pleased to fall in, a few days since, with an accurate return of amputations performed at the Oxford Hospital, for many years before and since the introduction of chloroform. It is drawn up by Mr. Hussey, and published in a recent volume of the "Transactions of the Provincial Association;" and exhibits a great increase of the rate of mortality between the period of the introduction of chloroform and the date of the return in 1852, or the commencement of the data from which the tables I have published are constructed.

Mr. Holmes considers it a mark of prejudice, my attaching any importance to the statement by a Military Surgeon of his great success in amputation before the introduction of chloroform; but he omits to mention that I had prefaced my notice of this report with the observation, that such limited statements were only of value when considered in conjunction with others of wider range. Had he remembered this axiom in statistics, he would not have been so ready to conclude, because the amputations at St. George's were more favourable in 1852 than in 1853, that the difference could only be accounted for by the breaking out of a new or unheard-of disease,—an epidemic pyæmia. A reference to the returns of the three years' mortality would have shown, that quite as great a difference occurred in other hospitals during that period; and shown also, that, instead of its being an erroneous procedure to estimate the general mortality by taking the average of various hospitals of similar character "promiscuously," it is, under the circumstances, the only rational, or, indeed, possible, mode of forming such an estimate.

When Mr. Holmes speaks of the co-existence of pyæmia in cases of fracture in which chloroform had not been exhibited with cases of amputation in which it had, as an argument against the position that chloroform may act injuriously by predisposing to pyæmia as well as other fatal affections, he forgets that pyæmia may have many causes, both predisposing and exciting; and (in reference to an illustration already used), that though drunkenness predisposes to cholera, this disease often attacks the temperate.

A reference need not be made to other remarks of less importance, because they have already been anticipated and replied to in my paper.

The important question is, what has caused this long-continued, widely-extended, and great increase of mortality after some of the severer operations.

If it be called an epidemic mortality, what epidemic, in the common sense of the term, lasts so long and continues over so great an extent of country? Cannot a sufficient reason be assigned for the fatal effect in the individual cases, without having recourse to a generally operating epidemic cause? Suppose that in lieu of chloroform, it had become the practice to bleed to syncope as an anæsthetic before amputation, according to the suggestion of Mr. Wardrop, would the mortality resulting from it have been attributed to an epidemic anæmia?

I believe that chloroform, in the large doses in which it has been generally administered of late years, acts as large bleedings would act; and that it is impossible for an unprejudiced person to witness its prostrating effect, the long-continued sickness, the suspended animation, and the sudden death so often caused by it, without acknowledging that it has all the appearances, at least, of a powerful and a pernicious agent. Whoever witnesses and reflects on these effects, and remembers the large number of sudden and uncontradicted deaths from chloroform, requires no proof of its ulterior fatal agency to convince him of the necessity of a change of practice in respect to it.

We cannot, after the examination of the evidence which has been adduced, be longer led astray by the often-repeated assertion that there is a saving of life upon the whole; and it would be absurd to suppose that the cases of sudden death from chloroform constitute the full measure of the mortality. How few even of these are generally known or reported! Hardly any in private practice, and now, even in Hospitals, they are concealed. It is well known to the frequenters of the London Hospitals, that, in the same week in which the recent death from chloroform at St. Thomas's occurred, another took place in another Hospital, but which did not become the subject of judicial inquiry. Humanity and the character of the Profession demand that the whole subject should be investigated anew. I am, &c.

London, Nov. 8. James Arnott.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

November 11, 1856.

Cæsar Hawkins, Esq., President, in the chair.

A case of true elephantiasis, by Jonathan Toogood, Esq., communicated by Sir B. Brodie, was read by the Secretary. The subject was a young woman, aged 22. Both legs and feet were involved in the disease, which also extended a considerable way up the thighs. There was a diminished secretion of urine, which was albuminous, every other function being natural. The patient recovered after the application of a steam bath every night to the lower extremities; fresh squills three times a day, and the recumbent posture.

The President, who considered the case one of true elephantiasis, mentioned that in a case of Barbadoes leg which came under his care, and in which he had amputated the limb, there was an alteration of cellular tissue pervading every portion of the limb, not confined to the integuments, but extending down to the bone, and affecting the periosteum.

Mr. Fergusson's paper on

THE TREATMENT OF ANEURISM BY MANIPULATION

was then read.

The author explained this term to mean peculiar forcible squeezing of the aneurismal tumour, with the intention of breaking up the fibrin supposed to be within; so that, being displaced, it might possibly block up the distal end of the tumour, or the artery leading from it. After sketching the various means whereby Nature is supposed to bring about occasional spontaneous cures, cases having come under the author's observations, in which spontaneous cures had seemingly been caused by displaced fibrin, the author proceeded to show that, while Surgeons had in some degree followed the dictates of Nature, as gathered by experience in their attempts at cure, they had not, as far as his knowledge went, attempted to imitate the actual displacements of fibrin by any active interference on their part. He then explained how he had for many years entertained the idea that a cure by such a plan might possibly be effected. After many years watching for a case, in which for want of a better plan, such a one as he indicated might be used, a case of aneurism of the right subclavian artery, between and outside the scaleni, came under the author's notice in February, 1852, wherein, appreciating all the known dangers of the usual mode of treatment, he resolved to try this plan:—The flat point of the thumb was laid on the aneurism, which was about the size of a hen's egg, and, when the sac was emptied of fluid blood, the inner surfaces and supposed contents were rubbed against each other. The pulse, which had been carefully examined, was immediately arrested in all the vessels below the aneurism, and the patient became faint and giddy. In six or seven hours the pulsations returned, but the author repeated the manipulations the next day with a similar but not lasting effect on the circulation in the arms; for it was not till seven or eight days that circulation could be readily detected in the arteries. The tumour gradually diminished in size and in force; a pulsation, and various indications, particularly the gradual enlargement of a branch of the subclavian artery, at the root of the neck; the supra-scapula, or the transversalis colli, gave every hope that a cure was in progress. After seven months, at which date the tumour was much diminished, the patient had a severe feverish attack, accompanied with excruciating pain in the tumour, and died after a few days' illness. On dissection, it was found that the axillary artery was blocked up, and that

the tumour had suddenly extended or had given way in the direction of the axillary plexus of nerves, which was supposed to account for the excessive pain. Another case, in most respects analogous to the above, came, ere long, under the author's notice, and was treated in the same way. A series of phenomena followed, similar in many respects to those observed in the former. The tumour in this case underwent a slow change, and ultimately disappeared between the twenty-second and twenty-fourth months after the manipulation. After discussing the principal phenomena connected with these cases, and expressing an opinion that the results in many respects corroborated the views of the author, he left the particulars for the further consideration of those who felt interested in the subject.

Mr. Pollock said, the author had not laid down any rule as to the size of the aneurisms in which he would recommend the manipulating treatment. The paper seemed to indicate that the treatment should be confined to small aneurisms. He would ask whether the method had been adopted with larger ones in the popliteal space or the femoral region.

Mr. Fergusson said, that the data he possessed were so few that he had been unable to form any rule of the kind mentioned by Mr. Pollock. Apart from the increased risk of bursting, he did not see why a large aneurism might not be manipulated as readily as a small one. These cases in Surgery were rare, and the cases in which one would be disposed to adopt a new method—cases, namely, in which other systems had been tried, and had nearly or entirely failed—were still rarer. He had more confidence in what might be called the Wardropian operation than most members of the Profession had; but he had no confidence in the Hunterian operation in the locality in question.

Mr. Curling said, it appeared that the recommendation was intended only to apply to cases in which it would be impossible, or very hazardous, to place a ligature upon an artery between the aneurism and the heart; still the question put by Mr. Pollock was an important one. Mr. Fergusson appeared to assume the presence of a firm coagulum in aneurisms. This might, indeed, be present in aneurisms of a considerable size, but in his (Mr. Curling's) dissections of smaller ones he had not found it. In the first case mentioned by the author he thought there must have been a coagulum, the disturbance of which had produced some good effect; but he hardly considered that the second case went fairly on to a cure. In that case he could not help being struck with the long interval that elapsed between the manipulation and the change that subsequently took place—an interval so long as to render it somewhat difficult to refer the cure to the manipulation. One could not but be interested in any novel plan of treatment for cases which generally terminated so unfavourably; yet one naturally regarded with some apprehension the adoption of a method which required the disturbance, and risked the rupture, of a sac so frail and fragile as an aneurismal sac, remembering that a patient might have a better chance of spontaneous cure. He did not mean to urge that consideration as an objection, but he thought it one which ought not to be lost sight of.

Mr. Henry Lee thought the members would like a somewhat fuller explanation of the way in which the coagulum was supposed to obliterate the distal extremities of arteries. If a portion of fibrin, as suggested, actually plugged up the distal extremity, the effects would be the same as if a ligature were placed upon it; but the symptoms mentioned by Mr. Fergusson did not resemble those effects, and some other explanation, therefore, should be sought. One had occurred to him which might be more satisfactory. In aneurismal sacs a portion of the fibrin often became softened down, and it was known from experiment that softened fibrin tended powerfully to produce coagulation of the blood in different parts of the system. Probably, then, the effect was due not to the solid, but the fluid portion of the fibrin, which, forced into the circulation, obliterated, not one artery only, but several; which would thus account for the effects upon the whole system. He could testify to the satisfactory condition at one period of both Mr. Fergusson's patients; the second case was certainly an excellent cure, whether natural or otherwise.

Dr. Dixon believed that the life of Liston was prolonged by the accidental separation of a layer of an aneurism plugging up an opening existing between the larynx and the œsophagus.

Mr. Moore thought there was a mode of operating by the old system still applicable under circumstances such as had been mentioned, namely, by operating simultaneously on the right subclavian and right carotid.

Mr. Erichsen said that this plan was adopted by Mr. Liston. He believed that every case of subclavian aneurism, in which the Hunterian operation had been performed internal to the scaleni, had terminated fatally; and the Profession was greatly indebted to Mr. Fergusson for the suggestions he had thrown out. He thought with Mr. Lee that some other explanation must be given of the phenomena following the manipulation practised by Mr. Fergusson. The symptoms of sudden pain, pallor, coldness, &c., resembled those induced by the plugging of arteries in arteritis where fluid or granular fibrin was washed down from the inflamed patch towards the terminal branches of the vessels; and he was disposed to think that some change of that description had taken place—that the manipulation of the sac, instead of disturbing a solid mass of coagulum—which could scarcely have existed, or Mr. Fergusson could not have felt the under surface through the upper—had disturbed the fluid or granular fibrin, which being washed down, had plugged up the arteries of the upper extremity.

The President said that in the first of the cases mentioned there might have been a displacement of the coagulum intercepting the circulation of the limb below; the aneurism, however, was not cured, the case terminating fatally in five months. In the second case the disease remained two years before it was cured. It appeared to him, however, that if the displacement of coagulum and the plugging up of an artery were to have any influence upon the disease, it must be an immediate effect, similar to the production of coagulation in other ways by ligature or pressure. Two years, therefore, elapsing between the manipulation and the cure, the latter event, he thought, should be attributed to some other cause. There was no certain proof of an interception of circulation by any displacement such as might have taken place in the first case. Even the apoplectic attack might as well be attributed to the circumstance which was mentioned of the patient having run very fast for half-an-hour, as to the effect of any pressure upon the aneurism. Spontaneous cure sometimes occurred in a few months, or even weeks. He had seen a case in the humeral artery, in which the sac was ¾ of an inch in diameter, and 1½ in length, and causing a great deal of distress, entirely cured in three months. Such spontaneous changes were sometimes sudden, and considering the length of time before the cure took place in the case related by the author, he believed that the manipulation had nothing to do with it.

Mr. Fergusson, in replying, said he agreed with Mr. Curling in believing that in small aneurisms there was usually no coagulum present, such as would be likely to produce the phenomena to which he had alluded. Still there was a roughness on the interior even of small aneurisms, a roughness produced by the presence of lymph, and a certain amount of fibrin; and possibly a smaller quantity might produce the results than was generally imagined. He did not bring the first case forward as a case of cure; on the contrary, he distinctly stated that the aneurismal tumour persisted to the last. He had given the very worst view of the case as far as his own opinions were concerned, for he might have attributed the patient's death to a violent attack of fever from which he suffered; and the tumour had visibly diminished in size. He could not coincide in the opinion that a certain amount of coagulated blood had been squeezed out, and carried into the distal vessels, for in that case it was extremely probable that the vessels would have been suddenly filled, and have been found like thick cords; and nothing of the kind was observed. In the Wardropian operation, pulsation went on as vigorously after the application of the ligature as before, up to a certain time, when it ceased. He admitted that the time had been shorter than in the instance to which he had referred. The phenomena which he had mentioned had not been observed under any other circumstances; and the remarkable filling up of the vessels from the manipulation was very different from the ordinary application of a ligature. The symptom of giddiness appeared unexpectedly; and he should not have thought so much of it had it not been exhibited in both cases. Following so immediately upon the manipulation, he could not help regarding it as a consequence. The slowness of the result might be difficult of explanation, but was no proof that the cure was not the consequence of the treatment. In spon-

taneous cures, no one could say precisely when the change took place: a change in the position of the fibrin might occur weeks or months, or even years, before its effects were distinctly observed.

The Society then adjourned.

THE PATHOLOGICAL SOCIETY.

TUESDAY, NOVEMBER 4.

Mr. ARNOTT, President, in the chair.

(Continued from page 480.)

Mr. HUTCHINSON showed the parts removed in an

EXCISION OF CANCEROUS GROWTH FROM THE CERVIX UTERI,

twice performed in the same patient. The patient was a stout, leuco-phlegmatic woman, aged 52. Her symptoms, in the first instance, had been those common in cancer of the uterus, and had existed for about a year prior to the first operation. She had fetid discharge, frequent and profuse hæmorrhages, and was much reduced in health. The cancerous ulceration involved the whole anterior lip and part of the posterior one, and had fungated so as to form a soft mass the size of a walnut. The uterus being quite moveable, and there being no evidences of secondary or glandular disease, the removal of the diseased part was decided on. After the operation the patient recovered well, the part cicatrized soundly, and she remained in perfect health until five months afterwards. At this time she began to complain of the same pain in the part that she had formerly had, and, on examination with the speculum, a growth, the size of two peas, just within the puckered opening of the canal of the cervix, was seen. Being anxious to have it again removed, she was at once admitted into the Metropolitan Free Hospital, and a second excision performed. On this occasion the greater part of the cervix was taken away, it being thought advisable to remove the parts widely around the morbid growth. The wound had healed well, and the woman was just about to leave the Hospital. On each occasion there had been rather sharp hæmorrhage, which had been restrained by plugging the vagina, having first applied powdered alum to the wound. The microscopic structure of the growth on the two occasions was very interesting. That first removed was a good example of medullary cancer, and showed large cells, some of them containing two or three large, well-defined nuclei. The tumour which returned, however, showed different elements, and was an example of what might be named

CILIATED EPITHELIAL CANCER.

It was about the size of a hazel-nut, and was developed just within the cavity of the cervix. When cut across, the juice scraped from its centre, and at a distance of at least a quarter of an inch from the free surface, showed abundant columnar epithelial cells, most of them possessing ill-formed ciliæ. In some, appearances as if of compound or nested bodies were observed, but none so complete as those so commonly seen in the scaly epithelial cancer were discovered. A few, two or three, nucleated large cells, like those of the original tumour, were also discovered, but they were sparingly scattered among the others. Many of the epithelial cells were misshapen and ill-formed, and their arrangements were very irregular, overlaying each other, etc. Mr. Hutchinson stated that he was not aware that this form of cancer had ever before been described. It was plainly an epithelial cancer, deriving its peculiarity from the circumstance that it grew near a surface possessing the ciliated columnar, instead of the flat epithelium.

Dr. Pollock showed a specimen of

SACCULATED ANEURISM OF THE AORTA.

The patient, a man aged 54, had been under his care at the Brompton Hospital. The circumstance which had first led to the diagnosis of a thoracic aneurism was the discovery that, whilst percussion was clear, the respiratory sounds were almost absent on the right side. There was found to be, soon afterwards, an area of dulness behind the sternum, above and quite distinct from that of the heart. Later still, pulsation at this part became evident. The left radial pulse was much the more feeble. The man's voice had not the peculiarity of key, often noticed in aneurismal cases. At the autopsy a double aneurism of large size was discovered. The first part commenced from the front of the aorta, just above its commencement; the second from the posterior part of the tube. Both were large, sacculated, and very irregular in shape.

Mr. POLLOCK exhibited the

HALF SECTION OF A LARGE FATTY TUMOUR,

which had been removed by him in St. George's Hospital a few days previously, from the back of a girl 7½ years old. From the history obtained of the case, it appeared that the tumour was first observed when the child was a year and a-half old, and that it progressively increased up to the time of its removal. The size of the tumour previous to removal was of a somewhat formidable character—the circumference at its base was 25 inches; its greatest circumference 31½ inches; from above downwards it measured 22 inches; and from side to side 28. Its base occupied the right lumbar region when the child was lying down; when upright it hung down over the nates, especially covering the right side. The base did not appear to be attached to either vertebræ, ribs, or ileum. Its external character was marked by lines of slight depression, mapping out bulging surfaces, which latter felt in some spots so dense as to convey the suspicion that some solid deposit here had taken place. Large veins also were observed on the surface of the upper portion of the tumour. The skin in most parts was but loosely connected with the growth, but at a few points some old cicatrices and some recent healthy granulating sores, the result of excoriations, were found towards the middle portion of its surface. The child was in perfect health, and could walk about with surprisingly little inconvenience. The tumour was removed with very little loss of blood. It was found to consist of fat, of more solid character than usually seen, and containing very firm, thick bands of fibrous tissue, traversing its interior in various directions. The sensation given, to the touch, of solid matter, appeared to depend on some of these bands having contracted upon the lobes of fat, and thus having compressed them most thoroughly into compact, hard, unyielding masses. The tumour weighed 12¾ lbs. The interest attached to the case in a pathological point is more as regards the rarity of fatty tumours in children, than upon anything in the tumour itself. Fatty tumours are usually observed after the adult period, and I have not been able to meet with a case in which it commenced at so young an age, or one in which it acquired so large a size in the period of six years.

Mr. POLLOCK also exhibited the

LEG OF A CHILD TORN OFF AT THE KNEE

from its becoming entangled in the wheel of a street-cab. The child was brought into St. George's Hospital in the afternoon, and was seen by Mr. Cæsar Hawkins; he was then in a great state of collapse. On examination it was found that the left leg had been entirely severed from the thigh at the knee-joint. The condyles and articular surface of the former were entirely exposed, and the soft parts were cut round, almost as if amputation by the circular incision had been performed without the bone having been sawn off. There was a simple fracture of the femur on the same side, about its middle, and a good deal of contusion. There was also a degree of tenderness of the abdomen, which led to the suspicion that some visceral injury had been sustained. It was impossible to say what quantity, or if much blood had been lost; but there was no tendency to hæmorrhage from the wound, nor from the divided popliteal artery, without any tourniquet or pressure being applied to the femoral. The child having rallied somewhat, Mr. Pollock removed the portion of the thigh below the fracture, and brought the edges of the wound together with sutures. The tenderness of the abdomen had somewhat increased during the evening, and as the urine drawn off contained much blood, it was evident that some rupture of the kidney or bladder might be looked for.

The leg was picked up by a policeman, and brought to the Hospital after the child. The patella was found attached to the leg, but the cartilages of neither patella nor tibia were injured. The curious point in connexion with this accident was, that the sciatic nerve was torn out with the leg, and was found attached to it some two feet in length. The boy died two days after the accident. Much extravasation was found along the course of the sciatic, and in branches of the sacral plexus on the same side. Some of these branches were shreddy, and broken off close to the ant-sacral foramina. The

sacro-iliac joints were separated, and the pelvis fractured on the right, through the pubis, into the obturator foramen. A sharp piece propelled inwards, and corresponding to this, was a rent in the bladder. Urine had become extravasated in the surrounding cellular tissue.

Dr. Quain presented a specimen of

ENCEPHALOID TUMOUR AT THE ROOT OF THE LEFT LUNG,

which was removed from a female patient who had been under his care in the Brompton Hospital. The woman, who was 34 years old at her death, ten years previously, whilst exerting herself, was seized with hæmoptysis. This symptom recurred at intervals for six years, with damage to her health. It then ceased for two years, and her health improved. At the end of this period she had cough, with loss of voice at intervals. Her health again suffered. She was admitted into the Hospital, complaining of short breath on exertion, cough, apnœa, and general weakness. She spoke of some difficulty, occasionally, in swallowing, and of pain near the sternum, about two inches below the left clavicle. There was dulness in this situation; the expansion of the whole of the left side of the chest was diminished; and the inspiratory murmur was feeble, whilst the expiratory was loud and prolonged. A loud murmur accompanying the first sound of the heart was heard over the seat of dulness above mentioned, and in the back, at the corresponding situation. There was no unusual impulse. The pulse, at all times quick, was equal in force at both wrists. There was no laryngitis. The symptoms mentioned increased in intensity, especially the difficulty of swallowing, and the patient finally died exhausted. After death, a tumour, about the size of a duck's egg, was found at the root of the left lung. It pressed on the left bronchus, diminishing its capacity; also on the aorta, about the transverse portion of the arch. The diameter of this vessel was lessened, and there were some well-marked folds of the lining membrane crossing the inferior surface of the arch. The œsophagus was pressed on, and so constricted as to admit scarcely a bristle. The recurrent laryngeal nerve was also pressed on. The tumour presented under the microscope the multiform, poly-nucleated cells and granules characteristic of encephaloid disease, with delicate filaments and blood-vessels. The left lung was infiltrated with the same, presenting much the appearance of miliary tubercle, but differing from it in being less dense to the feel, in occupying chiefly the base of the lung, and altogether in its microscopic characters. There was no disease in any other organ save in some of the bronchial glands. The case was one of especial interest in reference to the diagnosis, to the clearness of which the seat of pain, the dulness on percussion, the deficient respiration, the difficulty of swallowing, the embarrassed circulation contributed. Some little doubt which arose as to whether the tumour believed to exist was an aneurism or not, was set at rest by the absence throughout of any increased impulse or throbbing, although the symptoms progressed, and by the equality of the circulation in both arms, etc.

Mr. Bryant showed a specimen of

WOUND OF THE INTERNAL JUGULAR VEIN PRODUCED BY A FALL UPON BROKEN CHINA.

Jane J., aged 9 years, was admitted into Guy's Hospital, on November 1, 1856, under Mr. Birkett. About one hour previous to admission she was running down stairs, with a chamber utensil in her hands, when she stumbled, and fell upon the broken china. A scalp wound over the right forehead was the result; and a wound on the right side of the neck; from this severe bleeding followed. No other means than the application of a piece of plaster were employed, and the child was brought to Guy's.

When admitted she was pulseless and in a dying condition; a wound over the right forehead existed, and a peculiar indentation of the bone, evidently produced by a sharp edge, but no fracture. The wound on the neck was upon the right side, about one inch in length, and about one inch to the outer side of the thyroid cartilage; the edges were cleanly cut, no bleeding existed, and in less than five minutes the child ceased to breathe.

On making a post-mortem examination the source of the hæmorrhage was detected; the sharp edge of the broken china had perforated the skin, and deep fascia, divided some few fibres of the sterno-cleido-mastoid muscle, and entered the internal jugular vein, producing a clean oblique incision in its outer wall, about a quarter of an inch long, giving an observer the impression that the wound had been produced by a stab from a sharp instrument. The mode of production of such an injury as the above forms the principal point of interest in the case.

HARVEIAN SOCIETY.

Thursday, November 6.

This being the opening meeting, Dr. Ramsbotham, the President, delivered the introductory annual address to a crowded audience. After some introductory remarks, he said he should confine himself principally to a consideration of the causes that have most tended to check the advancement of Medicine. He enlarged first on the uncertain nature of our Profession, the ever-varying phenomena that are presented to our view,—the amazing difference that age, sex, climate, race, constitution, and diathesis occasion in the various individuals, the victims of the same identical disease. Secondly, on the manner in which Medicine has been studied, particularly pointing to the neglect under which Anatomy has languished until comparatively recent times. After an able sketch of the progress of Anatomy from the earliest times to the date of Harvey's discovery, and showing how nearly Erasistratus arrived towards the same point, the learned President contrasted the present England and Italy with what England and Italy were two hundred and sixty years ago. He said: "When Harvey was driven from his native shores for want of food for his inquiring mind; and when he found a luxurious banquet of science and philosophy on those of the Mediterranean, what a grave lesson do we not find presented to our understanding! What a picture is unfolded of industry, content, wealth, power, mental culture, and progressive improvement on the one hand,—the children of constitutional liberty; and on the other hand,—ignorance, idleness, poverty, a recession from the former high position, and constant attempts at revolution,—the invariable results of despotic tyranny. We in England surely cannot be too thankful that we are permitted to live in a country where such blessings surround us, and in an age when we may luxuriate in knowledge with such small labour, and at such small cost; when the printing-press spreads its wide arms to the uttermost parts of the earth, and as it travels diffuses broadcast over the lands it traverses blessings that, in reference to human happiness, can only be surpassed by the bountiful dew of Heaven. How wonderful has been the progress of science during the last half-century! What a revolution has been effected by its practical application in the social, the mercantile, and the political horizon! Changes have supervened far surpassing the most sanguine expectations of the most ardent minds. As an instance I may mention, that when the great Stephenson was examined many years ago by a Committee of the House of Commons as to the feasibility of railroad travelling, he gave evidence that he had no doubt twelve miles an hour might be obtained by the engines he proposed to construct; and as he left the room he said to a gentleman, well known to fashion, science, and the arts, now dead, but who himself told me the anecdote (a), that he felt satisfied he might have substituted twenty miles for twelve, but that he feared he should then have been considered a visionary enthusiast, and so have damned the cause he had at heart. Who could have supposed, fifty years ago, that wind and tide would ever be looked upon as elements not worth the consideration of the mariner? Who could have imagined, ten years ago, that in 1856 a network of wires would be carried through the sea and over land, by means of which our thoughts could be wafted in an instant to every part of Europe; that even in Constantinople might be known what was passing in London in less time almost than is required by me to state the fact; and that, too, by the agency of the same power that must have caused such consternation to former generations? Who could have thought, even in the wildest dreams of romance, eight years ago, that ever human science could have bade the sun to stamp indelibly on a tablet the fine and delicate lineaments of the human face, the perfect elevation of a cathedral with all its ornamental tracery, or the exact features of an extensive landscape? Who would have thought that

(a) The late Count D'Orsay.

the Menai Straits would have been spanned by an iron tube capable of carrying, from bank to bank, a load of many hundred tons, darting through its cavity at a rate of thirty miles an hour? And in times not far removed from our own age, who would have dreamed that the dirty, despised coal-mines of England would have brought indescribably more wealth to their immediate possessors and the country at large than the far-famed mines of Golconda, or the gold and silver of Peru? . . . . Nor has Medicine been behind-hand in this race of glory. It is the fashion to assert, that our science has stood still whilst all around us have been rushing onward in a torrent of advance. Those who deride us thus know nothing of the progress that Medicine has made within the period I have specified—the last fifty years. If no other man had lived among us but Laennec, this age would justly have been stamped as an epoch in the history of Physic. . . . The advantage over our predecessors which the speculum has given us, as a means of diagnosis and treatment in diseases of the uterus—although it is inferior to the stethoscope, inasmuch as it is applicable only to organs whose perfectly healthy condition is not essential to the preservation of life—can scarcely be overrated. I grieve, nevertheless, to be obliged to state my conviction that this instrument has, in some instances, been shamefully abused, and has led to quackery in its worst and most humiliating form." After alluding to the great advances the study of Pathological Anatomy, Organic Chemistry, Materia Medica, and the microscope had led to in Medicine, Dr. Ramsbotham contended that few sciences have progressed with more rapidity, and not one with so much benefit to mankind, as that which we have the happiness to cultivate and practise. He then went on to consider a third cause to which we may attribute the slow progress of Medicine, the manner in which it is regarded and received by the public; first treating on the protection and encouragement given to the Profession by different governments; and, secondly, the treatment which its members receive from individuals. He said, "As regards the first, it is a humiliating fact, that in England the government do little or nothing towards promoting the spread of Medicine as a science, or enhancing its usefulness practically as a Profession. Nay, more;—by the shameful sale of patent medicines, permitted only on account of the gain derived from a paltry tax, they both insult the authorized Practitioner, endanger the lives of the public, throw a shield around the most flagrant quackery, and clog the legitimate exercise of the Profession. Moreover, the law still exists, by which, should the unfortunate termination of a case become the subject of judicial investigation, the highest and most enlightened member of our community would be placed exactly on the same level as the most arrant and ignorant empiric. Another grievance that we may justly complain of is, that there are no places of honour or emolument set apart for the members of the Medical Profession, as there are for divines and lawyers. The utmost a Medical man can hope for, because it is the highest point he can possibly attain to, is to have the honour of knighthood or a baronetcy conferred upon him,—distinctions which are bestowed on Lord Mayors and Sheriffs with a much more profuse hand than on the scientific portion of the people. The Archbishop of Canterbury ranks next to the members of the Royal Family, and the Bishops take precedence of all temporal barons. The Lord Chancellor's rank is next in order to the Archbishop; and thus the two highest offices in the realm are open to the ambition of the most obscure student in Divinity and Law, while to the Professors of Medicine not even a commissionership is ever offered. With an equally niggard hand are pecuniary grants and pensions distributed. There must, indeed, be something very extraordinary in the case that would induce the Minister to make a grant of money to any member of the Medical Profession, however benefited mankind might have been by his discoveries, and however old and indigent he might have himself become. Successful soldiers are titled and pensioned, and any man who has invented a destructive weapon of war is held in high estimation; while those who have devoted their lives to the mitigation of human suffering are passed over as unworthy of regard. Such is surely a suicidal and narrow-minded policy, because it tends to drive young men of high talent and promise, who might otherwise be disposed to seek Medicine as a profession, into other walks of life. Every encouragement, on the contrary, ought to be held out to the flower of the rising generation to enter into the Medical Profession as a study; since the health, and consequently, the happiness, of the community are entrusted, under Providence, to their keeping. With this view some posts of distinction should be put aside or new ones created, and appropriated to the Professors of Medicine; and in that case it would soon be discovered that a preliminary scientific education, and the knowledge acquired in the intimate intercourse with society enjoyed by the Medical Practitioner, by no means disqualified him from undertaking places of trust, and executing delicate and important services. Have we any means of rectifying this anomalous state of things within our own power and in our own hands? I think the constitution of the House of Commons affords it to us, if we would only bestir ourselves to make use of it. In the Chambers of both Lords and Commons the Law possesses a large and overwhelming force; and, although the constitution of the country precludes the ministers of religion from holding seats in the Commons, that want is well supplied by the talent and eloquence of the members for the universities of Oxford and Cambridge; and the omission is, moreover, fully and excellently made up by the number, learning, and energy of the Bishops having seats in the House of Peers, while our Profession may be said to be practically unrepresented in either. Why cannot some influential members of our Profession be induced to come forward as candidates for the honour of the representation? I am persuaded that such a move would be hailed by us all with much satisfaction, and that great efforts would be made by the body at large for the accomplishment of their return; and I am equally persuaded it would be to the interests of even actual practitioners, to hold seats in the legislative assembly. Thus matters connected with the Medical Profession would, at any rate, obtain a fair hearing, and not be slurred over and shelved in so indecent a manner as we now constantly see them. The Government might even be driven to extend the franchise to some scientific corporations; and if the University of London, the Royal Colleges of Physicians and Surgeons, and some of the northern universities, had the privilege granted them of sending representatives to Parliament, the addition might be found to be as much for the benefit of the nation as for the honour and advantage of the Profession itself." After showing that the ancients entertained and evinced a much more just appreciation of the benefits conferred on the human family by an intelligent cultivator of medicine than do the moderns, and quoting various passages from Homer on the one hand, and D'Alembert, Le Sage, and Addison on the other, he proceeded to say:—"Perhaps this sarcastic raillery may be excused at the period which we may call the infancy of modern medicine, when there was so much pretension and so little knowledge. But the same excuse will not hold good in regard to the year 1856. We should scarcely have expected to find a member of the Imperial Legislature at this time of day stating openly in his place in Parliament, that 'if the Doctors had had their own way, we should never have had chloroform, nor any of the valuable discoveries that in modern times have been introduced with such advantage to the interests of humanity.' Yet these were the words of Mr. Henry Drummond, member for West Surrey, on the 2nd of April of this very year; and in commenting on the debate, during which Mr. Drummond made these assertions so contrary to truth, the leading journal of Europe remarks, 'There is so much guess-work in medicine—the President of the College of Physicians is so nearly on a level with the meanest herbalist—the result of the longest, most varied, and most profound medical experience is so often a discovery of the worthlessness of medicine, that we are not able to attach overwhelming importance to examinations in this department of the science. But Surgery is different; there all is capable of demonstration, and an examination can readily test a candidate's knowledge. Medicine is, in truth, surgery at fault; and the difference between the two is precisely the difference that there is between mathematics and metaphysics.' Is it not clear that this enlightened critic is talking on a subject with which he is perfectly unacquainted? Few things, indeed, could demonstrate more plainly the ignorance on medical matters that pervades the mass of mankind than this quotation, in which the *Times* itself (on most subjects so correct, and among whose leading articles may be found some of the most beautiful essays in our language) makes so decided a distinction between Medicine and Surgery—a distinction that no member of the profession will now-a-days recognise. How can we wonder at the erroneous and

illiberal views we see constantly developed by the people at large on the subject of medicine, when such are the sentiments promulgated by a periodical that professes to carry so much weight in leading public opinion. Mr. Drummond, and those who cheered him, should be told that it is not the Medical profession, but such members of the community as himself, who would prevent the promulgation of discoveries fraught with such blessings to humanity. I would like to ask Mr. Drummond, what would have become of the Sanitary Bill if it had not been for the doctors? I would tell Mr. Drummond that no sanitary measures would ever have been carried through Parliament if the Medical profession had not turned the screw so tight that resistance was impossible; and that while they were pressing these measures with their whole energies on the attention of the Legislature, they all knew they were actually cutting their own throats. Some twenty years ago, an enormous sewer was carried along High Street, Whitechapel, and branch-sewers formed to communicate with it, from all the small side-streets; among them, one from the densely-populated district of Middlesex Street, formerly called Petticoat Lane. Not long after its completion, I was passing, in the middle of the day, the house of a general practitioner in Raven Row, a part of that neighbourhood, and seeing him standing at his shop-door, knowing at the same time that he was very much engaged in his particular circle, I inquired of him how it was he was idle at that hour of the day. His reply was, 'Why, sir, those abominable Commissioners of Sewers have ruined me: I used to have twenty excellent cases of fever at a time on my books; and now, I have not two.' Every doctor was well enough aware that the sanitary measures, when carried into effect, would cut down his twenty excellent cases of fever to two; and yet they worked heart and soul for the accomplishment of this great end. Perhaps there never was a more disinterested and self-sacrificing move made by any large body of men. When would the lawyers be found combining together, in order to drive the executive into the passing of an Act, which they foresaw would deprive them of half their emoluments,—even although it were to be for the public good? Yet, this and more have the calumniated members of our profession done." The lecturer then alluded to the encouragement of quackery and homœopathy as impediments to the onward march of Medicine, and then continued, "I fear too that the present taste for specialities has tended in the same direction. It is no doubt much for the public benefit that in large communities men should apply themselves to particular departments of our difficult and comprehensive profession, as well as to the interest of the individual himself. But it is a great question whether this parcelling out the profession into little bundles, into petty pennyworths, as it were, does not interfere materially with that enlarged view which every physician should entertain and endeavour to disseminate. There is great danger lest the practitioner should in time regard the organ he expressly takes under his protection as an isolated being, distinct and separate from the grand whole, and that, by constantly directing his thoughts to its irregularities, he will in time attribute to its ailments more importance than they actually deserve, whenever indisposition has attacked the system at large. And here again the feeling of the public has a tendency to crib up medicine within narrow bounds, and to fetter its advance. They will continually speak of a lung-doctor, or a stomach-doctor, an eye-doctor, or an ear-doctor, as if each of these parts were separate entities; and they seem to think that a man may have wit enough to grapple with the diseases of one organ; but that two are beyond his powers; and that in the treatment of any, except his own particular favourite, he is little better than a dolt. Last winter I was in attendance upon the wife of a publican, who was dying from phthisis. On one of my visits, I learned that she had left home to see a Surgeon of eminence, attached to an ophthalmic Hospital, as well as to one of the large general Hospitals, whose care she had been under for a long time on account of a troublesome ulcer of the leg, but which I had never heard of before. In telling me her daughter had been out to see a Surgeon, the mother, in an apologetic tone, fearing, I presume, that I might take offence, said, 'But you know, sir, he is only a doctor for eyes and legs, he is not a doctor for physic.' It has always been my strong desire that the public mind should be disabused in this particular; that they should know that Medicine is studied as a whole, and practised as a whole; and that, although some among us may pay more attention to the derangements of one particular organ than to those of others, still that such selection does not incapacitate any man of ordinary intelligence from treating scientifically, and with judgment, whatever diseases may come before him."

Dr. Ramsbotham received the hearty applause and thanks of a large audience, and an unanimous request that he would publish his very important and eloquent discourse.

MEDICAL NEWS.

Royal College of Surgeons.—The following Members of the College having undergone the necessary examinations, were admitted Licentiates in Midwifery of the College at the Meeting of the Court of Examiners on the 11th inst.:—

Boggs, Alexander, Hon. East India Company's Service, Madras.
Blease, Thomas Tookington, Altrincham, Cheshire.
Gaffney, Charles, Buntingford, Hertfordshire.
Hanson, Denis, Hon. East India Company's Service, Madras.
Sutton, William, Halstead, Essex.
Taylor, William Henry, Sunbury, Middlesex.

Apothecaries' Hall.—Names of gentlemen who passed their examination in the science and practice of Medicine, and received certificates to practise, November 6th, 1856:—

Browne, Charles Henry, Bath.
Spratly, Samuel, Ramsgate.
Stephens, Daniel Wells, Emsworth, Hants.
Williamson, James, Perthshire.
Wilson, Robert, Argyleshire.
Wright, John Hodgson, Twickenham.

DEATHS.

Back.—Nov. 6, at Clapham Park, William Back, Esq., M.D., aged 74; many years Physician at Guy's Hospital.

Lambert.—Nov. 5, at Brussels, John Lambert, Esq., M.D., aged 42.

Williams.—Nov. 8, at Queen's-terrace, Southsea, John Williams, Esq., Surgeon, R.N., aged 71.

BEQUEST.

University College Hospital.—The late William Hayton, Esq., of Kilsby, Northampton, has left £1000 to this Institution.

University of Edinburgh.—The Winter Session of this University was opened on Monday week, by an address from the Rev. Dr. Robertson, in the absence from indisposition of the very Rev. Principal Lee.

Glasgow University.—The Session was opened on Monday week, when the inaugural address was delivered by the very Rev. Principal Macfarlan.

Queen's College, Birmingham.—The Rev. Chancellor Law, has resumed the office of Vice-Principal. A valuable collection of objects of Natural History from South Africa has been received from Major-General Whylock, R.M., for the museum.

Medical Mayor.—Mr. Charles Cory Aldred, Surgeon, was on Monday last elected Mayor of Great Yarmouth, Norfolk.

Museum of the Late Mr. Yarrell.—The Collections of birds, eggs, fish, comparative Anatomy, &c., of this distinguished Naturalist, is to be sold by auction on Dec. 4, by Mr. Stevens.

Dr. Porter, Professor of Anatomy in Nashville University, died recently from a dissection wound.

Belgian Royal Academy of Medicine.—M. Fallot who has held the office of senior Vice-President during nine years, has been elected President of that body. He is also the Honorary Chief Medical Officer of the Belgian Army, and officer of the orders of Leopold, and of the Legion of Honour.

La Charité Hospital.—M. Manec has been transferred from the Salpetrière, to the Surgeoncy of La Charité, vacant by the retirement of Professor Gerdy.

Miss Nightingale has been elected an Honorary Life Governor of Middlesex Hospital.

New Prize at the Académie des Sciences.—The Académie des Sciences of Paris has just received authority to add another to its numerous list of prizes, in the shape of a legacy of 3000 francs left by Baron Barbier, for the foundation of an annual prize to be decreed to the author of a valuable discovery in Surgical, Medical, Pharmaceutical, or Botanical science, having relation to the art of healing. When not decreed, the sum is to be carried to the augmentation of the next year's prize.

Mr. Pilkington, the new Mayor of Blackburn, has just subscribed the sum of £2000 towards the establishment of an infirmary at Blackburn, and promised £100 per annum towards its support. England has not lost all her merchant princes. How much better to do good while one can witness its results, than to rest satisfied with a mere legacy!

St. Thomas's Hospital.—It was noticed, incidentally, at a deputation of the Board of Works to Sir B. Hall, that there is a probability of the entire site of St. Thomas's Hospital being purchased by the Railway Companies for an extension of their terminus.

Royal Medical and Chirurgical Society.—The following are the regulations we announced last week :—"That as a general rule, the Proceedings will be issued every two months, subject to variations dependent on the extent of matter to be printed. That copies of the Proceedings will be sent, postage free, to every Fellow of the Society entitled to receive the Transactions. 'The Proceedings of the Society' may be obtained of Mr. Adlard, Bartholomew Close, on prepayment of an annual subscription of five shillings, which may be transmitted either by post-office order, or in postage stamps ;—this will include the expense of conveyance by post to any part of the United Kingdom ; to other places they will be sent, carriage free, through a bookseller, or by post, the receiver paying the foreign charges. That a notice of every paper will appear in the Proceedings. Authors will be at liberty, on sending their communications, to intimate to the Secretary whether they wish them to appear in the Proceedings *only*, or, in the Proceedings and Transactions ; and in the latter case they will be expected to furnish an abstract of the communication. That, in future, copies of the Proceedings will be furnished to the Journals at as early a period as possible after their publication, in lieu of the abstracts formerly furnished by the Secretaries. At the same time the Council do not think it at all desirable to interfere with such Reports of the papers read before the Society, and the discussions upon them, as the Journals may obtain through their authorised Reporters."

Poor-Law Medical Reform.—At a Meeting of the Medical Officers of the Warwick Union, at the Warwick Arms Hotel, Warwick, on the 6th of November, 1856, present Mr. Watson, Mr. Blenkinsop, Mr. Clarke, and Mr. Tibbitts, being the whole of the Medical Officers of that Union. Proposed that Mr. Blenkinsop should take the Chair. 1. Resolved,—That the thanks of this meeting be tendered to Mr. Griffin, of Weymouth, for his exertions in aid of a more equitable remuneration of the services of Union Medical Officers. 2. That it is the opinion of this meeting that the Medical Officers of Workhouses should be paid the same fees for extra services as those awarded to the District Medical Officers for extra cases. 3. That as the present salaries of the Union Medical Officers bears no equitable proportion to the duties they are called on to perform, it is most desirable that their amount should be increased. 4. That a subscription of 5s. from each Medical Officer of this Union be forwarded to Mr. Griffin for defraying the expenses of the movement. 5. That a copy of these Resolutions be forwarded to Mr. Griffin, and to the *Medical Times and Gazette*. 6. That the Medical Officers of this Union pledge themselves to ask the assistance and support in the House of the Members of Parliament of the County and Borough.—(Signed)—Henry Blenkinsop, Walter Watson, John Clarke, John Tibbitts.

Metropolis Water Supply.—The supply of water to the Metropolis has now reached the enormous quantity of 81 million gallons daily, it having been nearly doubled in the space of six years. The average daily supply of water for all purposes, which in 1850 was 164 gallons per house, is now in 1856, 246 gallons per house. Seven million sterling has been expended in the water-works of the Metropolis.

Special Regulations to be observed by Lecturers in Edinburgh.—The Royal College of Surgeons of Edinburgh have enacted :—"I. That every private Lecturer at this School of Medicine shall ascertain, at least twenty-five times in a six months' course, and twelve times in a three months' course, the actual attendance given by his pupils. II. That he shall do this by calling the name of each pupil at least once a-week, and entering in a regular roll-book the presence or absence of each individual; the students, of course, being kept in ignorance of the particular days on which this is to be done. III. That the said roll-book shall be kept according to a form prescribed by the College ; shall also be carefully preserved ; and shall be at all times accessible to the Examiner of the course of study, and to the Treasurer of the College, on whom it shall be incumbent to examine the roll-book of each class at least once during every session, before the termination of the third weeks in April and July respectively. IV. That on granting certificates of attendance on their classes, the private Lecturers shall use the annexed form, filling up the blanks with words at length, and on no account employing figures :—'Edinburgh.—I hereby certify that Mr. attended my course of Lectures commencing on and terminating on ; that the roll of the class was called times during the session ; and that Mr. was present on of these occasions.' (Signed) ——— V. That when a student's certificate of attendance bears that he has been more than five times absent in a six months' course, or more than thrice in a three months' course, when the roll of his class was called, the Inspector shall intimate this at the foot of that student's letter to the examiners, specifying the branch or branches on which the attendance was defective, in order that he may be particularly examined upon them. But if, on the other hand, a student's certificate of attendance bears that he has been absent more than eight times in a six months' course, or more than four times in a three months' course, he shall not be admitted to examination until he has attended another course of lectures on every such department of study. VI. That when a student's absence has been occasioned by sickness, or any other unavoidable cause, such cause shall be stated in the certificate of attendance granted by the Lecturer ; and the President and Council of the College shall decide whether the student shall or shall not be required to attend another course of such lectures before presenting himself for examination. VII. That the above regulations shall be imperative on every private Lecturer at this School of Medicine, whose Lectures are recognised by the College ; and it is hereby notified, that in the event of its being ascertained that any Lecturer evades the faithful enforcement thereof, the College will not hesitate to withdraw their recognition of his course of Lectures."

Prize Questions.—The Societé Medico-Chirurgicale de Paris offers a prize of 500 francs for the best essay (to be addressed to M. Martin, Secretary, Hôtel de Ville, before July 1, 1857) on the following subjects : —"On the Mode of Action of the principal Purgatives employed in Medicine, and the Indications derivable from the special Action of each." The Societé Impériale de Médécine de Lyon offers a gold medal, of 500 francs in value, to the author of the best essay on the following subject :—"The Diseases of the Critical Age in Man, and especially in Individuals following Studious Pursuits." Essays, written in French, to be addressed to M. Diday, Secretary, Lyons, by October 1, 1857. The Medico-Chirurgical Society of Bologna offers a prize of 1000 Roman crowns for the best essay forwarded to its Secretary before the 31st of May, 1858, upon the following subject :—"Indicate the Diseases in which Electricity may be advantageously Employed; describe the Different Modes of its Application, and Examine, by the aid of new Experiments, whether Electricity is able to transport Ponderable and Medicinal Substances into the Living Body." Le Académie des Sciences de Montpellier proposes prizes of 400 francs, in 1857, upon "Medico-Chirurgical Study of Uterine Deviations;" and of 500 francs, in 1858, "The Relations of Alimentation with Respiration ; are there any Aliments deserving the title of Respiratory? If so, determine their Nature, and follow their Transformations from the Moment of their Introduction into the Alimentary Canal, to the various Combinations which take place during Respiration." The essays to be forwarded by the 1st of August in the respective years to Dr. Rompt, 13, Rue du Courrier, Montpellier. The Societé de Médécine de Caen will

decree a prize of 300 francs for the best essay on the following theme :—"The Present State of Science in respect to the Treatment of External Aneurisms. Give an exact Description of the Different Methods, Ligature, simple Compression, Compression with Astringents, Electro-Puncture, and Injection of Coagulating Liquids. Draw a Parallel between these different Procedures, and justify a Choice among them by good and numerous Cases, distinguishing the circumstances in which each of these Methods is preferable." Essays to be addressed to M. Etienne, Secretary, by the 31st of March, 1857.

PESTILENCE IN INDIA.—CALCUTTA, Sept. 22.—This side of India has this year been heavily afflicted. The work left undone by the cholera has been completed by the inundation, and from the Punjab and every part of the Gigantic valley we have nothing but tales of suffering and loss. The pestilence broke out in Agra in May last, and in a few months slew upwards of 16,000 people. Thence it struck the native cities of Rajpootana, Bhurtpore in particular losing 50 men per diem. About July it began its march to the north-west, moving along slowly and quietly to Kurnaul. Then it took a spring, missing Umballah, but striking Ferozepore, and finally concentrating its strength on the cantonment of Mean Meer. One-third of the European artillery perished in a fortnight. It then turned on the city, but its fury was spent, and on its return march the mortality was much less and the disease not so fearfully rapid. At Mean Meer men died two hours after seizure. I can send you no certain statistics, but I have a very moderate calculation before me which gives the total loss of life at upwards of 90,000 persons. It seems certain that the Mean Meer artillery barracks, where its ravages were most terrible, are notoriously the largest, best ventilated, and best drained in India. Again, the disease everywhere appears to have spared the women, and most certainly did not attack European females—a strange fact, which suggests the idea that bad liquor may be a predisposing cause. The mere cost of the outbreak to the Company will exceed £60,000. The Surgeons universally behaved nobly, and the scourge, as usual, brought out many acts of individual heroism.

MORTALITY IN SCOTLAND.—The deaths registered in the eight principal towns of Scotland, during September, were 1691, of which 859 were males, and 832 females. Allowing for increase of population, this would give at the rate of one death in every 42 persons. Of the 1691 deaths, 863, or 51 per cent., were under five years of age. The proportion of deaths under five years of age, in the different towns, was, in Perth, 23 per cent; in Aberdeen, 33; in Edinburgh and Dundee, 45; in Paisley and Greenock, 48; in Glasgow and Leith, no less than 58 per cent. of the total deaths. The deaths from the Zymotic or Epidemic class of diseases amounted, in the eight towns, to 546; thus constituting 32 per cent. of the total mortality. The proportion of deaths from that class of diseases, in the different towns, was, in Perth, 18 per cent.; in Paisley, 21; in Aberdeen, 22; in Greenock, 24; in Dundee, 25; in Glasgow and Edinburgh, 34; and in Leith, 43 per cent. of the deaths. 43 deaths from small-pox were registered in the eight towns during September, thus constituting about 2½ per cent. of the total mortality. This disease appears to be on the decline in Edinburgh and Aberdeen, but on the increase in Paisley. Scarlatina during the past month has proved the most fatal of the Epidemics, having cut off 136 persons in the eight towns. It is on the increase in Glasgow, Edinburgh, Dundee, and Leith. Its invasion is earlier, and its increase and mortality greater, than during the corresponding period of last year. The sinking of the mean temperature from 57·5°, which it was during August, to 52°. during September, does not seem to have increased either the general mortality, or the diseases of the respiratory organs.

MORTALITY NOTABILIA.—The total deaths in London, which in the previous week were 969, rose to 1006 in the week that ended last Saturday. The average number in the ten weeks corresponding to last week, of the years 1846-55, was 1032; and if this number is to be compared with the deaths now returned, it must be raised in proportion to increase of population, when it will become 1135. The comparison shows a difference of 129 in favour of the return of last week. Diseases of the zymotic class numbered 238 deaths; the corrected average of corresponding weeks is 293. In the numbers referred respectively to the diseases that compose this class, scarlatina stands highest.

BIRTHS.—The births of 820 boys and 791 girls, 1611 children, were registered. Average 1514.

METEOROLOGY.—The mean height of the barometer in the week was 30·236 in. The *highest* reading occurred on Friday, and was 30·48 in. From the 15th ult. to the 8th of this month (the last date included in the Greenwich Table) the mean reading of the barometer was on every day 30 in. or more. The mean temperature of the week was 43·4°, which is 2° below the average of the same week in 38 years. The mean temperature on Sunday was 50·7°, which is 4·6° above the average; on every subsequent day it was below the average, and on Thursday it was only 37·7°, which is 7·5° below it. The *lowest* temperature on the last-mentioned day, and which was also the lowest in the week, was 29°. The mean dew-point temperature was 39·8°, and the difference between this and the mean air temperature was 3·6°. The mean temperature of the water of the Thames was 49.6°. Wind north-east. Rain 0·23 in. Horizontal movement of air, 160 miles; electricity positive with variable tension,

THE following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the several Districts of London, for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	5	4	3	2	9
North	490,396	4	2	8	5	3	12
Central ..	393,256	1	4	15	6	2	4
East.....	485,522	..	1	16	12	4	17
South	616,635	1	14	13	11	4	7
Total..	2,362,236	6	26	56	37	15	49

DEATHS IN PUBLIC INSTITUTIONS for the Weeks ending Saturday, November 8 :—

	Males.	Females.	Total.
Workhouses	42	38	80
Prisons	..	..	..
Military and Naval Asylums ..	4	..	4
General Hospitals	32	17	49
Hospitals for Special Diseases ..	7	1	8
Lying-in Hospitals	..	1	1
Military and Naval Hospitals ..	5	..	5
Hospitals for Foreigners, etc. ..	1	..	1
Lunatic Asylums	5	6	11

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, November* 8, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, Nov. 8, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 43·4°						47·2°
ALL CAUSES	1006	536	150	145	146	29	1032·3
SPECIFIED CAUSES	1005	536	149	145	146	29	1020·0
DISEASES:—							
1. Zymotic Class	238	187	21	13	17	..	266·2
2. Dropsy, Cancer, and others of uncertain seat	38	6	2	12	17	1	42·4
3. Tubercular Class	193	75	72	42	4	..	164·2
4. Of Brain, Nerves, etc. ..	90	37	15	11	22	5	111·0
5. Of Heart, etc.	47	8	4	16	17	2	40·9
6. Of Respiratory Organs ..	200	134	14	19	28	5	173·3
7. Of Digestive Organs ..	43	15	6	12	9	1	58·5
8. Of Kidneys, etc.	20	3	5	7	5	..	11·2
9. Of Uterus; viz. — Puerperal Disease, etc. ..	8	..	4	3	1	..	8·7
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	7	4	1	2	..	..	9·2
11. Of Skin, etc.	2	1	1	..	..	..	1·7
12. Malformations	5	5	..	..	..	..	2·6
13. Debility from Premature Birth, etc.	27	27	..	..	..	..	28·2
14. Atrophy	26	19	1	1	5	..	28·2
15. Age	28	..	..	..	16	12	41·8
16. Sudden	8	5	..	1	2	..	6·3
17. Violence, Privation, etc. ..	25	10	4	6	2	3	25·6
CAUSES NOT SPECIFIED	1	..	1	..	..	..	12·3

BOOKS RECEIVED.

Seventeenth Annual Report of the Registrar-General. London. 1856.

Account Books for the Use of the Medical Profession. By John Grove, M.R.C.S., etc. Ledger, Weekly Register, Journal, and Case Book. London. 1856.

Report on the Sanitary Condition of the City of London for 1855-6. By H. Letheby, M.B. London. 1856.

On Perforating Ulcer of the Stomach and Bowels. By J. B. Harrison, M.D. London. 1856.

Egypt and its Climate. By H. Rhind, F.S.A. Edinburgh. 1856.

De la Rue's Medical Memorandum Book for 1857.

Medical Despotism. By the late Physician to the Crimean Railway Expedition. London. 1856.

Diseases of the Stomach and Duodenum. By C. E. Reeves, B.A., M.D., etc. London. 1856.

TO CORRESPONDENTS.

So much inconvenience has arisen from the practice of printing private copies of papers for Authors, that the Proprietors have re-established an old rule—that no private copies of papers published in this Journal can be printed from the type used for the Journal.

Inquirer will find all the information he requires respecting the Army Medical Department in our Students' number.

We should rather not publish the two clever letters of J. L. anonymously.

Mr. Allen's paper shall be inserted.

Mr. Rymer's letter arrived too late for insertion last week.

Dr. Jenner's interesting case of Poisoning by Belladonna Plaster shall appear next week.

Mr. Dale's case has not been overlooked. It will be inserted in turn. The others will be acceptable.

Y.—The Proprietors have admitted the advertisements because it is not supposed that any harm can be done by bringing the Exhibition under the notice of members of the Medical Profession.

It does not seem prudent to notice *Mr. Vincent's* case, as the matter has been settled satisfactorily.

Chlorodyne.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Can you, or any of your readers, give me any information about Chlorodyne—its composition, Medical properties, and the reason why it is sold at the enormous price of 8s. an ounce, or 6d. a dose?

The pamphlets in which the bottles are enshrined claim for it the cure of Consumption and Asthma; and, *mirabile dictu!* 149 out of 151 Cholera cases. If this remedy gives such marvellously wonderful results in diseases differing so widely in pathology, why is it not supplied at a cheaper rate?

Perhaps some of your readers will be able to give me the information I need. I am, &c. *β.*

Seaham Harbour, Durham, Nov. 10, 1856.

Errata in Dr. Fuller's paper last week—Page 464, column 1, line 34, for "well," read "small." Line 64, for "glassy," read "glairy."

Caution.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have seen a "Caution to Medical Men" inserted in your paper of the 25th ult., and beg to inform you that a person giving the name of Johnson, and answering in address and appearance to the description given by your correspondent, has been favouring us here with a visit, and by his plausible account of himself, and apparent familiarity with Hospital routine and Medical nomenclature, has succeeded in obtaining money from some of the Medical men here, myself among the number. He informed me that he had been practising near Bath; from thence he had removed to Liverpool, and continued with the history of the Insurance Office, as stated in your paper. I am, &c. Y.

Nottingham, November 6, 1856.

B. B.—Ioduretted Glycerine is prepared by dissolving 1 part of iodide of potassium in 2 parts of glycerine, and turning this liquid upon 1 part of iodine, which is thus completely dissolved. This solution has the great advantage over alcoholic solutions of not drying. The surfaces to which it is applied remain supple, and the action and absorption of the iodide remain for a long time. In employing it, the diseased parts to which the solution has been applied are covered by paper of gutta percha to prevent the evaporation of the iodine, and to increase the sensible perspiration of the affected spots. This covering is retained for twenty-four hours, and the amount of reaction must regulate the subsequent applications. It has proved useful in lupus, and other obstinate skin diseases.

Mr. Amyot's request shall be attended to.

G. G. N.—Curable.

B. S.—Graduates of Universities have no right to use the common seal of the body to which they belong.

Sir G. H. B.—The name of the gentleman does not appear in the College List. It is probable, therefore, that the diploma could not be produced.

Statist.—The *Decennium Pathologicum* of Dr. Chambers appeared in this Journal in 1852.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your last number of the *Medical Times and Gazette*, is an article by Mr. Holmes Coote, Assistant Surgeon of St. Bartholomew's Hospital, upon a form of Phagedænic Ulceration of the Throat—not syphilitic. I have a case under my care in the country exactly similar to those he mentions; the patient is a labouring man about 40 years of age, married, with a family, of tolerably good constitution and steady habits; he strongly denies ever having the venereal disease; he first applied to me about ten days ago, complaining of sore throat, and on examination I found a foul looking ulcer, occupying the left side of the neck, nearly detaching the uvula, which dropped down and interfered much with the deglutition; it was surrounded by a deep jagged excavation and covered with adherent pus-like secretion. I am rather incredulous at all times as to the statement of the parties themselves, and generally treat all their suspicious looking ulcers as venereal, but in this instance, from the statement and character of the man, I believe it to be non-venereal. Mr. Coote does not say much on the treatment, in this case. I am freely using the caustic, giving Plummer's pill at night and a gargle in the day, two with chl. of soda and tr. opi. A large slough has come away and he can swallow better. He takes a pint of porter a-day, and lives as well as he is able in his position; the man has kept to his work, and I shall give him sarsaparilla in a day or two. Sore throats are very prevalent in this part of the country, and often put on an ulcerated and malignant character; this one, however, agreed so exactly with Mr. Coote's description, that I am induced to send it for your insertion should you think it worthy.

I am, &c., P. Gardner, M.R.C.S. & L.A.C.

Downham, November 4, 1856.

Messrs. W. and H.—A mutual friend, in whom both can confide, should be requested to act as arbitrator.

A Would-be Author is informed that we can suggest no better translation, as he calls it, of the term "histology" than "anatomy of texture."

Ignoramus.—Druitt's or Fergusson's Manual.

A Subscriber, General Practitioner, etc.—Having had several applications from our Professional brethren on the mode of filling up their Income-tax papers, we give insertion to the following, which, we believe, will be found correct:—First state the gross annual amount actually received for Professional services; then deduct two-thirds of rent of house, if part thereof be used as Surgery, etc; the salary and board of assistant or assistants; the board and wages of groom, and expense of horse or horses and carriage, if used solely for professional purposes, and the amount paid for drugs, phials, instruments, etc. The remainder is liable to the tax.

COMMUNICATIONS have been received from—

Mr. Tomes; Dr. Possner; Mr. Pigott; Mr. Bazalgette; Mr. Maunder; Mr. Holland; Mr. Hemingway; Dr. Barnes; Mr. Marratt; Dr. Child; Mr. Holmes Coote; Mr. Allen; Mr. Beale; Mr. Rymer; Mr. Gardner; Mr. D. Mackenzie; Dr. Tuke; Dr. J. Arnott; Dr. Jenner; Mr. Wilde; Mr. Leveson; Dr. Fuller; Mr. Baker Brown; Mr. Catlin; Dr. King; Mr. Senior; Mr. Dale; Dr. Viner; Mr. Amyot; Dr. Reeves; Dr. Quain; Mr. Pollock; Mr. Harris, St. Bartholomew's Hospital; Mr. Holmes Coote; Mr. Gibbons, Etruria; Mr. Allen; Mr. F. Carey, Guy's Hospital; Mr. H. S. Sanders; Mr. J. Entwistle; Mr. W. Bailly; Dr. W. Daniell; Mr. R. Farrage; Mr. B. Cawthorne; Mr. John Cook; Mr. Garner; Dr. Webb; Dr. Priestley; Dr. Hood.

APPOINTMENTS FOR THE WEEK.

November 15. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

Medical Society of London, 8 p.m.

17. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

18. *Tuesday.*

Operations at Guy's, 1 p.m.

Pathological Society, 8 p.m. Council meets at 7.

19. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 3 p.m.

Geological Society of London, 8 p.m.

20. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

Harveian Society, 8 p.m.: Dr. Marshall Hall "On the Asphyxia Neonatorum."

21. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

Western Medical and Surgical Society, 8 p.m.: Dr. Baines "On some Cases illustrative of the 'Tâche Meningitique' as Diagnostic of Hydrocephalus."

ORIGINAL LECTURES.

CONCLUSION OF THE FAREWELL LECTURE IN THE School of Physic in Ireland.

By W. F. H. MONTGOMERY, A.M., M.D., &c. &c.
Professor of King and Queen's College of Physicians in Ireland.

According to the arrangement we announced some weeks ago, Dr. Montgomery has, during the last few days, delivered a course of six lectures on Embryology. The circumstances under which these lectures were given having been very generally known, the lecture theatre was crowded each day with auditors of every possible standing in the profession, from those just entering upon their medical studies, to some who had been students of Medicine before the lecturer himself. All seemed anxious to avail themselves of the last opportunity of hearing one who had so long and so deservedly been one of the most popular medical teachers in Dublin. Nor was this feeling confined to the Profession; several non-professional gentlemen were present, and among the most regular attendants on the course was the venerable Provost of Trinity College. The last lecture was delivered on Wednesday the 12th instant, and was concluded in the following terms:—

Gentlemen, when commencing this Course of Lectures, I stated to you, that there were three incentives to the careful study of its objects.

1st. That, professionally considered, the knowledge to be derived from such investigations would be found of eminent utility; whether in enabling us to form correct opinions on questions of paramount importance to society; or in avoiding errors which might have the most deplorable results; of this, I think, I have offered you more than one convincing proof. 2ndly. That as a matter of physiological speculation and study, it afforded some of the most curious, beautiful, and interesting subjects of contemplation to be met with in the whole system of the animal economy; this also I trust I have been able to verify by sufficient illustration. And that, lastly, but above all, it claimed our deepest attention, as opening to us a field of observation and enquiry calculated, beyond all others, irresistibly to carry the young mind upward, from the contemplation of nature's works, to nature's God, from the study of the creature to admiration of the Creator; while we trace in the minutest, and almost invisible details of animal organization and life, the working of the same hand which poised the round world in unmeasurable space, and balances the clouds around it; and recognise the wisdom of Him "whose eyes did see our substance yet being imperfect, and in whose book, were all our members written, which in continuance were fashioned, when, as yet, there was none of them."

The writer of these words has told us that "they that go down to the sea in ships, that do business in great waters; these see the works of the Lord, and his wonders in the deep;" but we have seen that he who but loiters on the beach may find in the tangle and the sea-wrack objects no less convincing of an especial Providence; and in the arrangements for the security and evolution of the embryo dog-fish, as it lies in its wave-rocked cradle, with none but the wide, unquiet, ocean for its nursing mother, he witnesses the protecting care of Him who hath "measured the waters in the hollow of his hand, and meted out the heavens with a span." Or, as sauntering by the way-side, he discovers in the means by which the acorn is developed, matured, and shed from its calyx; or the unsightly chrysalis transformed into the rainbow beauty of the butterfly, a process as deserving of his admiration in its contrivance, and as perfect in its operation and accomplishment as that which ushers the infant monarch into life; and thus, viewing the face of surrounding nature with an attentive eye, and a heart open to conviction, he truly

> "Finds tongues in trees, books in the running brooks,
> Sermons in stones, and good in every thing."

As we traced our subject through the different classes of animal existence, we saw first, in the bird—whether we examine it in the towering ostrich, the gigantic epiornis, or the tiny humming bird—the curious adjustments by which the embryonic spot is maintained in the position most favourable for its evolution; arrangements marked with a perfection and beauty of contrivance beyond all human skill or ingenuity to devise or imitate; and while we wonder and admire, our inmost soul acknowledges that though "five sparrows be sold for two farthings, not one of them is forgotten before God."

The reproduction of the reptile tribe, the loathsome creeping things, we found replete with illustrations of no less admirable adaptation of means to ultimate ends, and even the toad, "ugly and venomous," we found did truly, for our instruction, "wear yet, a precious jewel in his head."

In the mammalia we saw where "the first dim speck of entity" began; and from dimensions so minute, that the unassisted eye refuses to be satisfied of its material existence; we traced it through the successive stages of development, from the time the slumbering germ of the future being first received the awakening influence that called it into life, until the period of its full maturity and perfection; and this, alike in the beasts of the field, as in man, "the paragon of animals," creation's masterpiece.

We have seen the strange but most provident arrangement adopted in the marsupial animals, which we examined and demonstrated in the kangaroo; and can there be any one who beholds such evidences of a directing Providence, even in the beasts that perish, and yet doubt that "the Hand that made them is Divine?" If such there be, I would say to him, in the words of the man of Uz, "But ask now the beasts, and they shall teach thee; and the fowls of the air, and they shall tell thee; or speak to the earth, and it shall teach thee, and the fishes of the sea shall declare unto thee. Who knoweth not in all these that the hand of the Lord hath wrought this?"

In the unborn offspring, whether of the brute or of man, we have seen that there is appended to the circulating system a supplementary apparatus, so adjusted, that while it enables the fœtus to complete the circuit of the blood, without its passing through the lungs (which are as yet undeveloped and quiescent), and thus provides for the perfection of its present condition and for all its necessities; it is, at the same time, so contrived, that the moment after birth, and as soon as the breathing life is established, the whole mechanism of the apparatus is instantly changed and accommodated to the new species of existence, and to all its future wants.

Who among us that has attentively examined the beautiful details of this "prospective contrivance" but must have had his admiration merged in the profound conviction that it was, indeed, He that made us thus fearfully and wonderfully, and not we ourselves; for, as Paley remarks, with reference to such arrangements, "there cannot be imagined a more distinguishing mark, and consequently, a more certain proof of design, than *preparation, i. e.*, the providing of things beforehand, which are not to be used until a considerable time afterwards; for this implies a contemplation of the future which belongs only to intelligence."

This day our attention was engaged upon the only sad scene of this eventful history, when we saw that our life may be tainted at its very source; that the seeds of life are often sown adulterated with those of infirmity and decay; that accidents may injure, disease may mutilate, and death destroy long before our entrance into this world—we may pine and die before we are born—or we may enter life,

> "Deform'd, unfinish'd, sent before our time
> Into this breathing world, scarce half made up,
> And that so lamely and unfashionable."

All this, no doubt, is very sad; but let us not forget that when the sorrows and the sufferings of this life are past, there remains for us another; in which we are assured, on authority that cannot err, that "there shall be no more death, neither sorrow, nor crying, neither shall there be any more pain."

One word more before we separate. This is now the thirtieth year in which I have enjoyed the highly valued and honorable privilege of addressing the Midwifery Class in the School of Physic.

Considerations of personal convenience have induced me to replace in the hands of the College of Physicians the trust

which they committed to me so long ago, when I was but a very junior licentiate of their body; and I cannot let this public opportunity pass without expressing to that College my grateful sense of the courtesy and cordial support which they have at all times afforded me since I became their Professor.

Nor can I omit to offer to the Board of this University, my sincere and warm acknowledgments for the confidence and kindness with which they have, in so many instances, honoured me, since I have been associated with their Medical School.

Gentlemen, my functions as a Lecturer are now terminated, and, as far as that branch of my avocations is concerned, I may say with Entellus,

"Hic . . . cæstus, artemque repono."

AN INTRODUCTORY DISCOURSE

ON THE CAUSES WHICH HAVE RENDERED

THE EYE A SEPARATE OBJECT OF MEDICAL STUDY.

By WILLIAM MACKENZIE, M.D.

Surgeon Oculist in Scotland in Ordinary to the Queen, etc. etc. etc.

Gentlemen,—In the few observations which I am now about to offer, by way of introduction to the following course of lectures, I purpose to direct your attention to the causes which have conspired to render the eye and its diseases a separate object of medical study.

These causes I believe to be chiefly the following four:—

1st. The organ of vision is one of the most complicated in the human frame.

2ndly. Its structure and arrangement of parts are in many respects peculiar, its function altogether so, and consequently its diseases different in certain important particulars from those which affect the rest of the body.

3rdly. The surgical operations occasionally required for the relief of the diseases of the eye are in minuteness, delicacy and peculiarity accommodated necessarily to the minuteness, delicacy, and peculiarity of the parts concerned.

4thly. The diseases of this organ are extremely numerous, and although in many cases purely local, yet they not unfrequently arise in other cases from constitutional affections, or sympathetically from certain morbid conditions of remote organs.

I shall now endeavour to illustrate each of these four propositions.

In the first place—The organ of vision is one of the most complicated organs of the body.

In fact, under the name "organ of vision" we comprehend a very great number of organs (organs signifying, as you know, simply instruments), and even some of these taken singly, sufficiently complicated, while all of them contribute more or less essentially to the production of sight.

Different views may be taken of the organ of vision. Ask a physiologist what the organ of vision is, he will probably answer, It is a nerve. The organ of vision is a sensitive nerve (the expanded termination of which is called the retina), so constituted as to receive certain impressions from light and convey these impressions to the brain; and to this, the optic nerve, all the rest of the curious and complicated apparatus of the eye may be regarded as subservient.

Ask a natural philosopher, again, the same question, he might perhaps answer in the quaint language of Sir Isaac Newton,(a) that the eyes are "natural spectacles," referring to the dioptric function of the organ—referring to the lenses of the eye, through which the light passes till it reaches the retina, and by which it is refracted—parts so perfectly analogous to the glasses or lenses of an optical instrument, that they immediately attract the attention of one versant in natural philosophy.

If we take up the organ of vision in an anatomical point of view, we have first of all the eyeball, the greater bulk of which is formed by the lenses, or humours as they are termed, of which we have just been speaking, namely, the vitreous, crystalline, and aqueous humours, to which we may add the cornea, a part which fulfils a double office, namely, that of a lens and that of a tunic. Each of these four parts differs from the others in consistence, and various other particulars. All of them are perfectly transparent, and give passage to the rays of light. The quantity of light, however, which is allowed to penetrate into the eyeball and traverse its lenses, is limited, and in fact measured by a distinct organ, known by the name of the iris, an opaque disk, in the centre of which is an aperture, called the pupil, which in the living eye is perpetually varying in diameter, according to the intensity of the light to which the eye is exposed. By the lenses, the light entering the eye and passing through the pupil, is changed in its direction, or refracted, so that it is made to converge and come to focal points on the hemispherical nervous membrane, called the retina,—formed by the expanded termination of the optic nerve, as just mentioned, on which is actually a minute inverted picture or image of all external objects to which the eye is turned, which image, however, is a mere coincidence, and is no object of our mental perception. It is the direct impression of the refracted and converging rays on the retina, producing there an unknown effect, and communicated by the optic nerves to the brain, by which the sensations of vision are excited.

Such, then, are the most essential parts of the organ of vision: a pupil or aperture for the transmission of a limited quantity of light, lenses, and a sentient membrane; but that these, the contents of the eyeball, may be supported and kept in their places, nourished with blood, and furnished with nerves, we find that they are surrounded by certain tunics or spherical membranes, which perform towards them the offices I have now mentioned. These tunics are the sclerotica externally, which is continued into the cornea, so as to form along with it a complete hollow sphere or shell; and the capsules of the lenses internally, while immediately within the sclerotica there is spread out a membrane of a dark brown colour (the choroid), for the purpose of absorbing the light within the eye, after it has produced its impression on the retina; a membrane, therefore, analogous in its use to the black coating with which the optician lines the tube of a telescope.

The eyeball, thus constructed, must be moved, it must be directed towards the object to be seen, and, having caught the object, it must be fixed upon it, till our examination of it be accomplished. It is, therefore, supplied with muscles, which turn in every direction, and thus save us the trouble of moving the whole head, or the whole body; or, on the other hand, which fix the eye on the object of our inspection, and fix it so perfectly, that, in many instances, we find the head or the body moving round the eye.

The surface of the eye would become tarnished were it constantly exposed to the contact of the air, and of the foreign particles which are floating through it unperceived, or driven about by the wind. Hence the eyelids and lachrymal apparatus; the former closing over the eyeball during sleep, and, being lined by a smooth and slippery mucous membrane (which is also reflected over the anterior part of the eyeball), closing upon the eye with instantaneous rapidity many times in a minute, to keep the eye moist and fit for motion, and its transparent surface clear and fit for the transmission of light; while, should it happen that any foreign particle, of greater bulk and more irritation than common lights upon the eye, the lachrymal secretion, in a sudden flood, washes it away. But the mucus which is constantly secreted by the conjunctiva (the membrane which covers the anterior part of the eyeball and lines the eyelids), and the tears which are thus occasionally called forth must be removed when they have fulfilled their office, else they would become an impediment and a disease; they would gather on the eye, drop over on the cheek, and make the eye weak and the cheek tender; all which we see actually take place, when the apparatus, by which in the healthy state they are removed, comes to be obstructed. I refer, at present, to the puncta lachrymalia, which, taking up the mucus and tears, convey them into the lachrymal canals, through which they flow into the lachrymal sac, and thence descending into the nose, are thus excreted from the seat of their operations.

There are still other contrivances for protecting the eye from injury, from the intrusion of foreign particles, from the intrusion of the sweat descending from the forehead, and from the entrance of too much light, viz., the eyelashes and the eyebrows.

(a) Query 31, at the end of the "Opticks."

All the parts which I have enumerated are connected with, and the most important of them are contained within, an osseous cavity, the orbit, which still farther serves for their protection.

Now, even this kind of enumeration were sufficient to make out the assertion, that the organ of vision is one of the most complicated of the body, for neither any of the other organs of sense, nor, indeed, any part of the body, is composed of so many different members, each fulfilling its own particular duty, but all concurring to one purpose.

There is, however, another view of the complicated structure of the eye which I think worthy of your attention, and which you might not be so ready to perceive, unless it were pointed out to you. We find in the organ of vision a minute but distinct specimen of every texture which exists in the other organs of the body, besides textures *sui generis*.

We have the cellular and adipose textures; the fibrous, the cartilaginous, the osseous, the nervous, and the muscular, in all their varieties; blood-vessels; mucous, serous, and synovial membranes; glands, skin, and hairs; while the textures *sui generis*, are the important ones of the cornea, crystalline lens, and vitreous humour.

It must be evident to you, upon a moment's consideration, that if the organ of vision be so complicated, as these views of its structure show it to be, the study of it must necessarily be minute and toilsome; it will be impossible to dismiss the anatomy of the eye and its protecting parts in a few words; it will be impossible to know it after an hour's sitting; but it will require reiterated examinations, many dissections, and careful and attentive study.

The use of investigating the structures of the eye, in regard to its component textures, or histologically, to use a newly-invented term (a knowledge of textures being now reckoned so important as to constitute a separate science, which is termed histology), will appear evident, if you consider that both the functions and the diseases of each of the textures present peculiarities of great importance. For instance, each of them, when it becomes inflamed, manifests certain modifications of the phenomena of inflammation, which modifications are constant, and peculiar to the particular texture affected. Each of them has also a tendency to peculiar diseases. The mucous membranes, for example, when affected with inflammation, pour out a large quantity of puriform fluid from their secreting surfaces, and these surfaces rarely contract morbid adhesions from inflammation. The serous membranes, on the other hand, even on slight inflammation, are apt to effuse coagulable lymph, and their secreting surfaces to adhere together. In treating the diseases of the eye, we are obliged to make constant reference to the peculiar affections of each of the textures. When the conjunctiva, for instance, is affected, we have to do with a part of the mucous system, and to contend with that class of diseases which are called catarrhal or blenorrhœal. When the walls of the aqueous chambers are inflamed, we may expect an event to take place, which must prove particularly dangerous within the eye, namely, an effusion of coagulable lymph, and the formation of morbid adhesions; for it is a portion of the serous system which is then affected. And so on, of all the other parts of the organ of vision.

After illustrating, in a manner equally full and able, the other three propositions, the learned lecturer said:—"Such, Gentlemen, are the four causes which appear to have chiefly contributed to render the eye a separate object of Medical study. The eye is complicated, it is peculiar, it is minute; while, besides local diseases, it suffers from numerous remote and constitutional influences.

The four causes which we have been considering have operated differently on different minds. The minuteness of the organ, and the delicacy of the operations performed in the eye, have tended, no doubt, to produce the mere mechanical oculist. But it must be evident, from the consideration of the other three causes, that it would be impossible to trust the care of any case of eye-disease to one unacquainted with pathology and medicine in general, nor is it difficult to comprehend the only method by which the mind of an individual can be successfully applied to the cultivation of this or any other particular subject in Medicine or Surgery. He must go upon the principle of concentration, not upon that of subdivision, which, however useful in the mere mechanical arts, would here be misplaced, injurious, and contemptible. The multitude of facts which are accurately to be ascertained in medicine is so great, that it becomes necessary for one man to collect them from one part of the economy, and for another observer to attend chiefly to another part; but each of these observers must possess certain lights to throw upon the object of his research—that object will never become illuminated merely by his looking at it—he must know what has already been observed; he must know the principles already deduced; he must come to his own station, not to make more re-observations of what is already known, but to discover what is yet unknown; he must communicate to the other observers the results of his experience, and learn the results of theirs.

This, then, is the mode in which the study of the eye and its diseases ought to be pursued, not only by those who mean to make this the chief object of their Professional labours—but by those who intend to enter the Medical service of their country, where a knowledge of the diseases of the eye will not only form a high recommendation, but be absolutely required, and even by the general Practitioner, who, situated often at a distance from the assistance of others, must depend in eye-diseases, as in all other cases, on his own resources, and will find it no slight reproach, when eye-cases are brought to him, either to be obliged to confess that this is a part of his Profession he has never studied, or, recklessly attempting to treat what he does not understand, blunder on till he probably finds his patient deprived of sight.

The great secret in treating eye-cases—the secret without which everything else must fail—is to know and discriminate the various states of disease to which the eye is subject. The successful removal of eye-diseases depends almost entirely on accurate diagnosis. Discover what the disease is, make out accurately the pathology of the case before you, make out the *rationale* of the symptoms, local and general, and if the case be curable, the cure is generally simple. Confound many different diseases, huddle them promiscuously together under a few general, and, perhaps, unmeaning terms, and, to a certainty, you will mistreat some of them.

Another point on which success in this department of Medical practice very much depends, is the doing of whatever is done to the very best of one's ability, doing nothing slovenly, nothing carelessly, nothing at random; prescribing no remedy without a clear and reasonable object in view, applying every remedy with the utmost care, and watching the effects of every application with a diligence equal to that with which the chemist watches the effects of his re-agents, and with an eager hope of discovering something new and useful.

I trust that those who mean to follow me through this course of lectures, enter on the subject with that love of truth which renders them, in all their pursuits, impatient to be put upon the track most likely to lead to the successful investigation of nature; with that candour which enables the inquirer, without the least hesitation, to renounce opinions hastily formed, for others, the results of maturer examination; with that love of humanity which grudges no labour likely to contribute to so noble an object as the advancement of the healing art.

To those who are imbued with these principles, the study of the eye and its diseases is calculated to afford a high degree of interest and satisfaction. Its anatomical structure, above that of every other organ of the body, abounds in the display of means exquisitely adapted to ends; the questions which the physiology of vision embraces carry the inquirer into those branches of philosophy which are not less distinguished for their sublimity than their truth; and as for the practical part (which also must be the principal part) of our subject, believe me, you will not merely understand vastly better the nature and treatment of all other diseases by studying those of the eye, you will not merely acquire thereby an aptitude for patient and laborious inquiry, habits of method and arrangement, and a spirit of accuracy which you will carry with you into all your pursuits, but by this study you will be preparing yourselves for reaping, in after-life, a harvest of as generous emotions as can affect the human heart. I know no feeling more enviable—I believe there is no feeling more capable of filling the mind with pleasure, than that which a Medical Practitioner must experience, when, beholding the delighted and grateful subject of his art, he can indulge the consciousness of having been the means, however humble, of saving or of restoring sight; of conferring, therefore, on a fellow-creature a boon, nearest in excellence to those which a man receives from the Creator."

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

(Selected, by Authority of the Director-General, from Documents in the Office of the Army Medical Department.)

No. XXVII.

OBSERVATIONS ON THE STATISTICS OF (MEDICAL) DISEASES OF THE STOMACH AND BOWELS,

AS THEY AFFECT SOLDIERS, OFFICERS, WOMEN, AND CHILDREN, IN INDIA.

By CHARLES ALEX. GORDON, M.D.
Surgeon 10th Regiment of Foot.

(Continued from page 344.)

In continuing the remarks on this important class of diseases, that have already been made, we now come to the discussion of cholera,—a disease that in India forms unquestionably the most terrible scourge that can happen to a regiment.

Sporadic cases occurred in the 10th Regiment during every year the corps was in India, except in 1854-55, while it occupied the station of Meean Meer, in the immediate vicinity of Lahore (a).

During each of the first four years of its service in that country, however, the malady prevailed in an epidemic form; but, although the proportion of deaths to attacks was great, the ratio of attacks to strength was fewer than what happens in the greater number of outbreaks of the disease among regiments.

Making every allowance for the cause of error, arising from calculations made from insufficient data, we find that the rate of mortality per cent. among the various classes attacked during the epidemics, and when the malady occurred sporadically, to have been—among soldiers, 52·46; officers, 100; women, 70·83, and children, 80·00.

If we still further consider the rate of mortality, as influenced by locality and length of service of the corps in India, we find that, on its first arrival, and when it occupied Fort William, at Calcutta, the disease proved fatal in 50 per cent. of the soldiers attacked. Among officers, the 2 who were affected both died. Of the women, 42·88 perished, but the children seem to have been altogether exempt from the disease.

In the year succeeding, namely, the second of Indian service, one wing of the regiment continued to occupy Fort William; the other was quartered at Chinsurah, a low-lying, malarious station, close to the banks of the tidal river Hooghly, about thirty miles inland from Calcutta, 50 per cent. of soldiers, all the women and the only child attacked succumbed; the officers being exempt.

During the third year of Indian service, only 18 cases occurred, namely, 12 while the regiment occupied the above stations, and 6 while proceeding up the country, during the cold season, to Meerat. Of all these, 47·82 per cent. were fatal among soldiers. Of 8 cases among women, and one among children, all were fatal; but, again, officers were exempt.

On the last occasion, when the malady occurred in an epidemic form, namely, at the far inland and generally healthy station of Meerat, the rate of mortality among men was 61·22; women, 33·33; while the only officer and the 4 children attacked died.

If we consider the remaining number of cases that happened during the subsequent years the regiment was in India, the mortality was—among men, 31·57, and among children 50·00. No officer was the subject of the disease, and the only women attacked recovered.

Such, then, if not an exact representation of, may be taken as a near approximation to, the rate of prevalence and mortality from this disease, under the various circumstances in which it appeared in the 10th Regiment in India; and, if we may from this form an estimate of its severity when prevailing as an epidemic, and occurring in isolated cases, we perceive its rate of mortality to be much greater under the former than in the latter circumstances.

(a) The late accounts from India show how severely the troops at Meean Meer have this year suffered from cholera.—C. A. G.

The proportion of cases that occurred during the months constituting the cold season was always small, the period when the malady was most frequent having been the hot and rainy seasons.

It is to be regretted that the Hospital records contain but a meagre account of the general circumstances, meteorological and otherwise, attending the first three outbreaks that took place. Some points of importance may, however, be gathered from the report of its last appearance, drawn up by the late Dr. Grant, of the 9th Lancers.

That excellent Medical officer observed that the epidemic approached Meerut from the westward; that is, apparently in the opposite course to the one it is generally believed to pursue. It, moreover, seems not to have made its onslaught at once, but to have developed its violence gradually, and with some interruptions.

Thus, in the month of July, 1845, 2 cases of the disease, and 1 of colic, were admitted, the former proving fatal. In August, 5 of cholera, and 9 of diarrhœa, occurred, 2 of the former ending in death. In September, when the outbreak of the disease was at its height, 38 cases were admitted, of whom 27 died; as also 21 of diarrhœa, and 1 of colic, of which none were fatal. In the month of October, 2 cases of cholera, and 14 of diarrhœa, were admitted, but none of them died; and in November, 7 of diarrhœa only, all of whom recovered.

From this it will be seen, that in India the approach, as well as departure, of such an epidemic as is here alluded to, may be very gradual.

The occurrence of a few isolated cases within a short time of each other must, in India, always be looked upon with suspicion, particularly if diarrhœa becomes at the same time of increased frequency.

Under such circumstances, the gradual establishment of what may be called a choleraic diathesis among the members of a regiment, is readily observed. There is an increased tendency to diarrhœa; purgative medicine seems to operate with undue violence; and antimonials, when administered, induce preternatural nausea or vomiting, so that the employment of such remedies requires much caution; and, in fact, in some shapes, such as sulphate of magnesia and tartar emetic, become dangerous in any doses.

With reference to the condition of the atmosphere during the prevalence of the epidemic here alluded to, Dr. Grant considered the wind to have had a much more powerful share in the visitation of the disease than even the previous irregularity which characterized the summer of 1844.

During the outbreak, a westerly wind prevailed with few interruptions; it is moreover stated as a fact that when the wind for two or three days became easterly, the disease ceased; but simultaneous with its return to the west, a fresh outbreak took place. The same was observed after a day's heavy rain, when the disease for a time seemed to be checked, but it again appeared as the air became hot and dry.

Nowhere, perhaps, so much as in India are particular meteorological conditions so distinctly associated with diseases of certain kinds; and there, not only is the occurrence and subsequent disappearance of this disease intimately connected with particular atmospherical conditions, but also many others, such as fevers of various types, and what is called apoplexy of the hot winds.

All classes of Europeans in India, are more liable to diarrhœa than those of corresponding ages in the United Kingdom. In that country, however, if we may judge from what was observed in the 10th Regiment, all are not equally liable to it, the tendency occurring among officers, men, children, and women in the order in which these are noted; while the liability to death from this disease prevails, in like manner, among children, women, officers, and soldiers.

This affection prevailed in the greatest measure during the first four years the regiment was in India, the average annual number of cases for that period being 120·25; and for each of the remaining portions of its service there 43·22; so that it would appear the yearly admissions on this account numbered 77·03 more on those occasions when cholera occurred as an epidemic than when the corps was free from it.

Among soldiers stationed in the plains of India, diarrhœa is a disease of inconsiderable mortality, death in the few fatal cases that do occur there being usually induced, either by the disease degenerating into chronic dysentery by the occurrence of organic disease, or when it supervenes upon a severe attack of some other malady, as remittent fever in a subject already

debilitated by long illness, protracted residence in the country, or cachectic habit of body.

At some of the hill-stations in the Himalayas, however, to which regiments are occasionally sent, with a view to renovate the constitutions of the soldiers, after a tour of service at the unhealthy frontier-station of Peshawur, such an obstinate and fatal description of diarrhœa occurs, that the propriety of sending them there has often been questioned, notwithstanding the agreeable, and almost English, climate of such localities.

Children present the greatest ratio of deaths to attacks of diarrhœa, and the affection being a frequent attendant of dentition, as well as common during the period when infants usually undergo that process, there is good reason to believe that numerical returns do not always represent its actual rate of prevalence and mortality as an independent malady, many such cases being noted under the head of "dentitio."

Among them the affection is most prevalent in the rainy season, or during the damp, oppressive weather that intervenes between it and the cold months. At such time caution and attention are required to check the symptoms early, as even when unconnected with mesenteric or other glandular disease, it is particularly liable to become obstinate, and is, when accompanied by such complications, very dangerous to life.

[To be continued.]

CASE OF POISONING FROM THE APPLICATION OF BELLADONNA PLASTER TO THE SKIN.

By WILLIAM JENNER, M.D., F.R.C.P.
Physician to University College Hospital, the Hospital for Sick Children, etc.

Mr. Th., having suffered for some time from pain in the back, palpitation, and dyspeptic symptoms, consulted on October 4 a Physician, who prescribed nitro-muriatic acid, and a belladonna plaster, 9 inches by 6 inches, for the back. The plaster produced a crop of pustules, though the patient was not aware of it.

At 10 a.m., October 14, he removed the old plaster, and applied on the same part, now the seat of the pustules and of a few minute ulcers, a new one of like size (a). At this time he felt particularly well. Soon after ten he left home. Between eleven and twelve, while in the city, he noticed that his tongue and throat were extremely dry, and that his tongue was covered with a white, clammy fur, which he could pull off in strings. The sense of dryness and discomfort of the tongue and throat were most distressing, and such as to impede articulation. At the same time he was affected with extreme desire to micturate, though he could pass only a few drops of perfectly colourless urine. From this time till he lost consciousness his desire to pass urine was constant; wherever he could retire he did so, but succeeded in expelling from the bladder, with considerable effort, only a few drops of colourless fluid. The sense of dryness of the tongue and throat continued to increase, and he soon began to feel a little confused in his head, so that he was fearful people would think he had been drinking. He transacted all his business correctly, though at his office, where he was between two and three o'clock, it was observed that there was something strange in his manner and speech. Here he drank some water, which seemed even to increase his sense of dryness of the tongue. He drove himself home, which he reached about three o'clock. His mind, by this time, was a good deal confused, and, feeling himself unable to pay his men, he placed the money he had just drawn from the Bank in safety in his own room. Soon after he had, five or six times in quick succession, convulsive catchings of the extremities, face, and trunk, such, he says, as animals have when bitten by venomous serpents (b); then his mind began to ramble, and his ordinary Medical attendant, Mr. Knaggs, of Kentish-town, was sent for. When Mr. Knaggs arrived, Mr. Th. was very delirious, but still recognized him.

I saw the patient about six p.m., at Mr. Knaggs' request. We found Mr. Th. much worse than when Mr. Knaggs had left him. He was standing by the bedside, supported by two men; he seemed to exercise very little control over the lower extremities, and to have very little power in them. It was clear that he must have fallen to the ground had he been left without support. He leaned a little to the right, as though the right side were weaker than the left; but then those about him told us that shortly before he had inclined to the left side. He was led, at my request, to the opposite side of the room, both legs dragged, but neither one more than the other. He was restless in the extreme, and would not lie down for an instant; his hands were in constant motion, he seemed as if he were busy moving some light objects. Occasionally, he raised his feet alternately some distance from the ground, as one does in ascending stairs. He moved his mouth incessantly, evidently with the idea that he was talking; but the sounds that he uttered were inarticulate, and altogether unintelligible. He paid no attention to those about him; in fact, seemed unconscious of their presence, only now and then, when addressed in a loud voice, he stared at the speaker for an instant, like one suddenly aroused from a sound sleep. Once he laughed, when bid to put out his tongue, and in the most rapid manner protruded it, and then as quickly withdrew it. There was a little deviation of the face to the left, though not more than is natural to many adults, and is, I think, proper to Mr. Th. The pupils were very large; when the candle approached them, they acted equally, but imperfectly and sluggishly. The head was warm, but not warmer than the surface generally; the face was a little flushed. There was no throbbing of the vessels of the neck or head.

The pulse was between 80 and 90, and regular. The heart's action was tolerably strong; the left ventricle was hypertrophied, and a loud, double, endocardial murmur was heard at the base.

The history of the symptoms before Mr. Knaggs saw the patient was only obtained from him after his complete recovery, and so some doubt was at first entertained as to the nature of the case. Still, as the symptoms agreed with no disease of the brain or meninges with which I was acquainted, while the majority were such as occur in poisoning with belladonna, we thought it highly probable that they were due to absorption of belladonna by the skin. The plaster was accordingly removed at once, and the surface greased and washed, and clean linen put on, some of the belladonna having passed on to the shirt. A blister was applied to the back of the neck, and an aperient, with five grains of sesquicarbonate of ammonia, directed to be given every two hours. The first dose of the ammonia produced such decided improvement, that Mr. Knaggs gave a second dose in half-an-hour; this was followed almost instantly by perfect consciousness.

The next morning Mr. Th. was able to arrange his accounts, though he had not slept for an instant. He had no sleep the following night, and his memory for two or three days was very defective. He does not remember anything that passed between Mr. Knaggs' first visit (and even of that he has only a dim recollection), and his return to consciousness, about 10½ or 11, p.m. He is now quite well, with the exception of slight dimness of vision, and dilatation of the pupils, and a consciousness of a little impairment of memory. There does not seem to have been any eruption on the skin, excepting the pustules, nor any itching on the surface.

I am induced to publish the case, first, because cases of poisoning with belladonna occur but rarely, and it is, therefore, desirable that the symptoms noted in particular cases should be recorded; and, secondly, because of the practical bearing of the case in regard of the caution it enforces as to the repeated application of belladonna plasters to the same surface.

8, Harley-street, Cavendish-square, October 30, 1856.

(a) Both plasters were obtained from Mr. Bell, Oxford-street.
(b) Mr. T. is employed in the Zoological Gardens.

CASES OF OBSTRUCTION OF THE BOWELS.

By JAMES LONG, F.R.C.S.,
Surgeon to the Liverpool Royal Infirmary.

(Continued from page 288.)

Case 3.—Tumour in the abdomen; constipation; sudden relief from the bowels; disappearance of the tumour; post-mortem.—The following case occurred in the clinique of M. Ricord at the Hôpital des Vénériens at Paris, of which I took full

notes at the time. A man was sent from the country with a supposed hydrocele; he had also a tumour to the left of the umbilicus, circumscribed, not painful, and dull on percussion. The man's bowels were obstinately constipated; in other respects his health was good. The supposed hydrocele was a serocystic tumour, and was removed. All went on well till the fifth day after the operation, when, after having had a large feculent evacuation from the bowels, he suddenly became exhausted, and died. The abdominal tumour had disappeared; no trace of it could be found; the abdomen was resonant throughout. A good deal of calculation existed as to the nature of this tumour, and as to what had become of it. On examination after death a flaccid tumour was found lying to the left of the lumbar vertebræ, adherent to them, to the aorta, and to the left kidney; it was also connected to and communicated with the jejunum, immediately to the left of the superior mesenteric artery. At first sight it appeared like an accessory cœcum, or, in other words, to be a *cul-de-sac* or large pouch appended to the jejunum. It was partially filled with a somewhat similar material to that contained in the testicle.

The opinion entertained at the time was, that the tumour was an independent growth, which had communicated with the jejunum by the process of ulceration, and had partially discharged its contents through that channel; that the distention of the colon, on the one hand, with fæces, and of the duodenum, on the other hand, with chyle, the tumour itself being also probably filled with chyle, had caused it to be upraised, and easily felt through the abdominal parietes, while the sudden emptying of the colon, followed by that of the duodenum, and also of the fluid contained in the tumour, had caused its subsidence and a fatal syncope. All the rest of the viscera were quite healthy.

Case 4.—*Contraction of the ascending colon; violent antiperistaltic movements. Post-mortem.*—In May I attended, in consultation, a lady, aged 38. She was thin and delicate-looking; she had long experienced great difficulty in keeping her bowels regular; she was obliged to be extremely careful in her diet; and if she took anything indigestible, such as a piece of cheese, or a piece of potato that had not been well masticated, she was sure to be seized with flatulence, griping, and diarrhœa, until the offending substance had passed. About ten months previously she had complete obstruction, attended by violent antiperistaltic movements. Her Medical attendants gave her up in despair; Nature, however, came to her relief, a diarrhœa set in, and she escaped with her life, but has never regained her former state of health and strength.

Two months ago a similar attack occurred, which continued up to the time I saw her. About every half-hour a violent antiperistaltic movement commenced at the cœcum, ran backwards along the whole tract of the small intestines, and terminated by the eructation of a large quantity of gas, alone, or accompanied by a greenish mucous fluid; the abdominal parietes were so thin, that the movement of the muscular coat of the intestines could not only be felt but distinctly seen; at times diarrhœa set in, and for the time being, the antiperistaltic movements ceased. Opium, as might be expected, was the only medicine that afforded relief. The case was one, clearly, of obstruction in the colon, and an obscure thickening could be felt in its ascending portion. The idea of forming an artificial opening was thought of, but she was so reduced that it was no sooner entertained than abandoned. She died on the 9th of May, death being preceded by enteritic symptoms, pain and distension of the abdomen, and diarrhœa, alternating with bloody mucous stools, etc.

Post-mortem.—Emaciation extreme; no peritoneal inflammation. A stricture existed in the ascending colon, about the middle of its length; it was firm and hard, and occupied the whole circumference of the gut: a goose-quill could barely be passed through it. The colon, to the extent of six inches beyond the stricture, was thickened and ulcerated, the distal portions of the colon, as well as the rectum, were healthy, but not larger than the little finger. The cœcum and adjoining portion of the colon were enormously distended; there was no appendix vermiformis; the ileo-cœcal valve had been unfolded, so that the ileum and cœcum formed one continuous tube, the former being dilated to the ordinary size of the colon. The remainder of the ileum was distended and contracted at intervals; one portion, about eight inches in length, was invaginated. The jejunum was somewhat distended; the stomach, duodenum, and gall-bladder flaccid and almost empty.

Case 5.—*Sudden obstruction of the intestines produced by twisting of the mesentery. Post-mortem.*—A gentleman, aged 53, of wiry frame, and most active habits, who had never, within his recollection, had a day's illness, and had just got his life insured; while over-heated and fatigued, took a hearty draught of cold water, on the 12th of September. He was immediately seized with a pain in his abdomen, and shortly afterwards drank a glass of hot gin and water, which immediately returned. On the same day, and on the following day purgatives were administered, and immediately rejected; and enemata were given, which returned unchanged.

I saw him on the 15th. The countenance was sunk, the skin clammy, the pulse 76, small and intermittent. He had vomited a great deal, and was still sick; the matter ejected was of a yellow colour and subacid smell. The abdomen was distended and tympanitic, except in the right iliac, the right lumbar, and adjoining portion of the umbilical regions; here, on percussion, the sound was dull; there was no pain on pressure. There being no hernia to account for the symptoms, I suspected that intussusception existed. A long tube was introduced per anum, with the intention of injecting a large quantity of water; but after a pint had been introduced what followed returned as fast as it was injected. I proposed to try the tobacco enema, but this was objected to. On the following day I succeeded in introducing a tube to the extent of sixteen inches, and injecting two quarts of water; this returned unchanged. I tried on the following day the effect of cold water, and afterwards distended the colon with air, but with no better results. Vomiting of the same sort of matter as that just described continued, and hiccup was most distressing. I expected that he would die during the night; on the following day, however, the 18th, he was somewhat better, having less vomiting and hiccup. On the 20th he had the coffee-ground vomit, the quantity ejected being about four quarts in twenty-four hours. The dulness in the right lumbar iliac and umbilical regions, was replaced by a tympanitic sound. On the 22nd a small quantity of feculent matter passed per anum; the vomiting and hiccup continued; small quantities of offensive fæces occasionally passed, he became more and more exhausted, and died on the 30th, having survived the obstruction eighteen days. The matter vomited never had the so-called stercoraceous odour or appearance. It was at first of a yellow colour, and subacid odour; then of a coffee-ground colour, and sweetish odour; it then became almost black; and lastly of a yellow slimy character, and of a disgustingly sickly odour.

Post-mortem.—The origin of all the mischief was soon discovered—The mesentery had become twisted on itself by the sudden peristaltic action produced by the cold water. One twist having taken place, the same action continuing had twisted the mesentery round and round, as a handkerchief held by the four corners might be twisted, reducing it to a cord-like state. Behind this cord-like mesentery passed a portion of the ileum, which, though not gangrenous, was soft and easily torn; the parts above the superior mesenteric artery, viz., the stomach and duodenum, were flaccid and empty, but the gall-bladder was distended with bile almost to bursting. The two lower thirds of the ileum, the cœcum, colon, and rectum were flaccid and collapsed, while the remainder of the ileum and jejunum were enormously distended, and occupied almost the entire of the abdomen. The distended intestines were of a dark port-wine colour; a few recent adhesions connected the folds to each other, to the omentum, and adjoining viscera. The dulness existing on the right side of the abdomen when I first saw the patient, and its replacement on the 20th by the tympanitic state, when the enormous coffee-ground vomiting occurred, is explained, by the intestines having been relieved of the large quantity of fluid which had been contained in them, and by the enormous distension with gas of the jejunum and part of the ileum which then took place. The enormous amount of dark fluid ejected by vomiting is easily understood, when the amount of venous obstruction which such an extent of twisting of the mesentery must have produced, is considered. During the whole duration of the distension he took nothing but water, and, though reduced to a skeleton, he did not despair of recovery until a day or two before his death.

Case 6.—*Supposed case of obturator hernia—enlarged ovary—internal strangulation produced by the omentum—Post-mortem.*—In September, 1850, a lady, aged 30, who had been confined

a few months previously, and, on the whole, had enjoyed good health, sat in the damp cabin of one of the ferry-boats while crossing the river. She was seized on the following morning with an acute pain in the right groin; this was succeeded by vomiting. Her Medical attendant, finding the bowels constipated, and some tenderness in the right inguinal region, ordered some leeches, and calomel and opium, followed by purgatives. The pain was relieved, and the vomiting ceased during two days, calomel and opium alone being administered during this period. The bowels had not been relieved. The vomiting and tenderness returned, and I saw her on the 21st. At this period the vomited matter was stercoraceous, and though enemata had been freely given, no relief had been obtained from the bowels. There was nothing to be found externally, nor by an examination per anum, nor per vaginam, to indicate the site of the obstruction, except a pushing downwards of the folds of the vagina, and a slight fulness in the right femoral region. This was in the usual site of a femoral hernia, but more deeply seated; it lay under the femoral artery, which it pushed somewhat forwards. I suspected that an obturatory hernia existed; Mr. Bickersteth now saw the case. He had no doubt as to the existence of strangulation, but as to its nature or whereabouts he felt great uncertainty; still, as the swelling in the right femoral region, and the occurrence of pain in that situation in the first instance, pointed to it as its probable site, it was proposed to perform an exploratory operation; as, however, we could not promise any satisfactory result we did not urge it, and the patient and her friends fortunately declined it. On the 23rd she died.

Post-mortem.—The right ovary was of the size of a fœtal head, it was unilocular, and contained dark fluid blood, and was, therefore, soft; it was pushed forwards below Poupart's ligament, and into the pelvis, producing the fulness in the groin, and the protrusion of the vaginal walls. The omentum was pushed over towards the left groin, and adherent there. On detaching it the small intestine was found compressed behind it; the obstruction was complete, the intestine being distended with fluid and flatus above the compressed point, empty and flaccid below it. Signs of recent inflammation existed in the neighbourhood of the right ovary.

Case 7.—Old hernial sac, possible strangulation in the inguinal canal; operation; pericœcal abscess—On the 11th July, 1853, I saw, along with Mr. Higginson, a gentleman, aged about 56, who on the preceding day had been seized with a slight rigor, followed by pain and tenderness of the abdomen. He informed Mr. Higginson that he had a hernia. Mr. Higginson, on examination, found a protrusion in the site of obliquc inguinal hernia on the right side, with the pad of a badly adjusted truss pressing on it. He tried to push it into the abdomen, but could not. The bowels were obstinately constipated, and flatulent irritations and hiccup were constant; but there was no vomiting. Warm turpentine fomentations, enemata, and calomel and opium were administered, without any beneficial result, when I saw him on the evening of the 11th. The pulse was 93; tongue white and coated; countenance anxious; the abdomen greatly distended, the upper half tympanitic, the lower half, particularly towards the right iliac region, dull on percussion; there was also a considerable amount of tenderness, especially in this latter region. A swelling existed in the right inguinal canal, and protruded slightly through the external ring. The taxis, which was lightly tried, made no impression upon it. There was no vomiting, but constant hiccup and flatulent eructations, and the bowels continued still unrelieved. We neither of us considered the symptoms to be dependent upon a strangulated hernia; but probably caused by inflammation, set up by pressure of the truss, and rendered more active by exposure to wet. Leeches, calomel, and opium, warm fomentations, and warm water enemata were prescribed, with some relief to the general symptoms. A tobacco poultice (an application which I can strongly recommend when there is no mechanical obstruction) was placed over the abdomen; it excited violent peristaltic action, but produced no evacuation from the bowels. On the evening of the 13th, his pulse and tongue were unaltered; the distension of the upper half of the abdomen had increased; the lower half was still dull on percussion, but to a less extent than before; pain on pressure was less; hiccup was incessant, still there was no vomiting. Enemata had been freely given, and brought away a small quantity of feculent matter; but a few currants, which had been given two days previously, had not passed. The protuberance at the external ring was less; but something was still felt in the inguinal canal, which it was thought might be a small portion of omentum or intestine. Under these circumstances, we decided upon ascertaining what was really the state of the parts.

Mr. Higginson made an incision over the external abdominal ring, and came down upon an old hernial sac; this, which was of small size, thick, and fibrous, was opened, and a small quantity of fluid escaped. He then introduced his finger into the inguinal canal, and felt what seemed to him to be a small portion of intestine protruding through the internal ring. On using his finger to circumscribe this protrusion it suddenly gave way, and there gushed out a torrent of thin pus. A large dose of opium was given, and on the following morning a large enema, which brought away a considerable quantity of flatus and fæces. All the symptoms gradually subsided, and recovery was perfect. It appears probable, that the hernia had not been down for a long time, and that the symptoms were dependent upon inflammation of the cœcum, terminating in pericœcal abscess.

Case 8.—Probable intussusception; recovery.—The following case occurred in the practice of Mr. Hulme, a Surgeon of this town. A cabinet-maker, aged 29, had diarrhœa, and while suffering from it and at work and perspiring, was exposed to a draught of cold air. He immediately felt a chill; the diarrhœa ceased, and the bowels had not again acted, when Mr. Hulme saw him, two days afterwards. He had then frequent calls to relieve them, but without effect. Some purgative pills and soap and turpentine enemata were administered with no result. Vomiting then set in, and soon became stercoraceous. Mr. Hulme, suspecting that intussusception existed, injected from two to three quarts of thin gruel, which returned unchanged. The abdomen became much distended with flatus and tender on pressure. On the following morning the efforts to relieve the bowels and the tormina became so unbearable, that the man begged his left side might be opened, in order that the bowel, which he was certain was twisted, might be relieved. Mr. Hulme, however, resorted to an expedient which he informs me is frequently practised on calves and pigs under similar circumstances. He placed the man with his head downwards, his elbows resting on the floor, and his legs on the bed. He then seized hold of the legs, thus raising the trunk up, and shook the man violently. The man exclaimed that something had given way, requested to be placed in the night-chair, passed a large quantity of fæces, and all his symptoms disappeared.

LONDON AND PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

TABULAR STATEMENT OF SEVENTY-SIX CASES OF SURGICAL ANEURISM.

ANALYSIS OF THE SERIES AND COMMENTS.

The following series includes, it is believed, all(a) the cases of Aneurism admitting of surgical treatment which have been under care, during the past four years, in the Metropolitan, and those of the Provincial Hospitals comprised in our Statistical Reports. Almost the whole of the cases have at former periods appeared in the pages of this Journal, but as they have been scattered in different parts, it has appeared that the collecting of them together, and attempting an analysis of facts which they supply, could not but be of great advantage. In attempting this task, attention will of course be chiefly given to the comparative results of the recently introduced plan of treatment by compression. In the following Table, no classification of cases has been adopted, but they are given for the most part in chronological order. In the comments to follow they will be considered in groups; and in the meantime it is hoped that the reader's eye will be enabled easily to estimate the gross proportions. The Analysis, Comments, etc., will appear next week.

(a) With the exception of three or four quite recent ones, the full particulars of which cannot yet be given.

No.	Hospital, Surgeon, etc.	Reference.	Sex.	Age.	Position of Aneurism.	Size of Aneurism.	Duration of Aneurism.
1	Guy's—Messrs. Hilton and Poland.	Medical Times and Gazette, October, 1853, page 451.	M.	34	Popliteal; left.	Orange.	—
2	London—Mr. Critchett.	Medical Times and Gazette, October, 1853, page 451.	M.	32	Popliteal; left.	Small orange.	Nine weeks.
3	London—Mr. Ward.	Medical Times and Gazette, August, 1851, page 155.	M.	45	Popliteal.	Orange.	Three weeks.
4	Guy's—Mr. Cooper.	Medical Times and Gazette, October, 1852, page 411.	M.	47	Femoral; right. (Diffused.)	Very large; ill-defined.	Three months or more.
5	St. George's—Mr. Hewett.	Medical Times and Gazette, October, 1853, page 451.	F.	31	Popliteal; right.	"Filling the space."	Two weeks or more
6	Guy's—Mr. Cock.	Medical Times and Gazette, October, 1853, page 451.	M.	57	Popliteal; right.	An egg.	Two months.
7	Guy's—Mr. Hilton.	Medical Times and Gazette, October, 1853, page 452.	M.	67	Double femoral; right.	One the size of fist, the other of an egg.	One year.
8	Guy's—Mr. Hilton.	Medical Times and Gazette, October, 1853, page 453.	M.	37	Popliteal; left.	An egg.	Six weeks.
9	Leeds Infirmary — Mr. Teale.	Medical Times and Gazette, October, 1853, page 453.	M.	30	Popliteal; left.	Filled the space.	One month.
10	Leeds Infirmary — Mr. Samuel Hey.	Medical Times and Gazette, October, 1853, page 454.	M.	39	Femoral. (Diffused.)	Very large.	One month.
11	St. George's—Mr. Hewett.	Medical Times and Gazette, November, 1853, page 475.	M.	32	Popliteal; right.	Large orange.	Five weeks.
12	St. Bartholomew's—Mr. Lloyd.	Medical Times and Gazette, November, 1853, page 477.	M.	24	Popliteal; left.	Hen's egg.	Not known.
13	St. Bartholomew's—Mr. Lloyd.	Medical Times and Gazette, November, 1853, page 477.	M.	34	Popliteal; left.	Large orange.	Four months.
14	St. Thomas's—Mr. Le Gros Clark.	Medical Times and Gazette, November, 1853, page 477.	M.	41	Popliteal; left.	More than filling the space.	Three months.
15	London—Mr. Luke.	Medical Times and Gazette, November. 1853, page 477.	M.	60	Popliteal; left.	An orange.	Four years?
16	London—Mr. Curling.	Medical Times and Gazette, November, 1853, page 479.	M.	43	Femoral; right. (Traumatic.)	A very large fist.	*Twenty* years.
17	Westminster—Mr. Holt.	Medical Times and Gazette, November, 1853, page 479.	M.	30	Radial; right.	Goose egg, or larger.	One month.
18	Nottingham—Mr. Thos. Wright.	Medical Times and Gazette, November, 1853, page 479.	M.	36	Popliteal; right.	2½ inches long; 1½ broad.	Eleven months.
19	University College—Mr. Erichsen.	Medical Times and Gazette, November, 1853, page 499.	M.	42	Popliteal; left.	Large fist.	Three months or less.
20	St. Bartholomew's—Mr. Stanley.	Medical Times and Gazette, November, 1853, page 499.	M.	29	Popliteal; left.	Pigeon's egg.	Two weeks or more.
21	St. Bartholomew's—Mr. Stanley.	Medical Times and Gazette, November, 1853, page 499.	M.	29	Popliteal; right.	Pigeon's egg.	Two weeks or more.
22	Exeter Infirmary — Mr. Edye.	Medical Times and Gazette, November, 1853 page 500.	M.	36	Anterior tibial. (Traumatic.)	A chestnut.	One month.
23	Nottingham Infirmary—Mr. Wright.	Medical Times and Gazette, November, 1853, page 501.	M.	—	Popliteal.	—	—
24	Exeter Infirmary—	Medical Times and Gazette, November, 1853, page 501.	M.	—	Popliteal.	—	—
25	Guy's—Mr. Hilton.	Medical Times and Gazette, November, 1853, page 500.	M.	28	Popliteal; right.	Large orange.	Two months.
26	St. Mary's — Messrs. Coulson and Walton.	Medical Times and Gazette, July, 1854, page 37.	M.	48	Popliteal; left.	Small orange.	Eight months.
27	St. Mary's — Messrs. Coulson and Walton.	Medical Times and Gazette, July, 1854, page 37.	M.	29	Popliteal; right. (Diffused.)	Three inches long and three across.	One month.
28	St. George's — Mr. Tatum.	Medical Times and Gazette, November, 1854, page 541.	M.	—	Popliteal; double left treated.	Very large.	—
29	Middlesex — Mr. De Morgan.	Medical Times and Gazette, Statistical Reports.	M.	60	Popliteal; or just above.	Orange.	—
30	Middlesex—Mr. Moore.	Medical Times and Gazette, July, 1854, page 35.	M.	35	Popliteal; left.	Large pear.	Two weeks.
31	Guy's—Mr. Cock.	Medical Times and Gazette, Statistical Reports.	M.	43	Popliteal.	Large egg.	—
32	King's College—Mr. Fergusson.	Medical Times and Gazette, August, 1854, page 189.	F.	24	Popliteal, or a little above; left.	Half orange.	—
33	King's College—Mr. Fergusson.	Medical Times and Gazette, December, 1854, page 642.	M.	33	Radial. (Tranmatic; false.)	A walnut.	Three months.
34	St. Thomas's—Mr. Solly.	Medical Times and Gazette, November, 1854, page 545.	M.	35(?)	Popliteal.	Large.	—
35	King's College—Mr. Fergusson.	Medical Times and Gazette, November, 1854, page 545.	M.	46	Subclavian; right; 3rd part of course.	Half an orange.	Two years.
36	St. Bartholomew's—Mr. Skey.	Medical Times and Gazette, March 25, 1854, page 289.	M.	28	Femoral; high up; just beneath Poupart's ligament.	Small orange.	Four years.
37	St. Thomas's—Mr. Solly.	Medical Times and Gazette, March 25, 1854, page 289.	M.	30	Popliteal and femoral; high up; just beneath Poupart's ligament.	Large.	—
38	St. Thomas's—Mr. Solly.	Medical Times and Gazette, December, 1853, page 579.	M.	60	Common carotid.	Fist.	Six weeks.
39	Guy's—Mr. Callaway.	Medical Times and Gazette, January, 1855, page 86.	M.	25	Popliteal; left. (Diffused&punctured.)	Very large.	Not known.
40	The London—Messrs. Adams and Ward.	Medical Times and Gazette, August 11, 1855, page 135.	M.	31	Popliteal.	Small orange.	Three months.
41	Guy's—Mr. Cock.	Medical Times and Gazette, February, 1855, page 183.	M.	30	Femoral. (Diffused.)	Very large.	—
2	St. Bartholomew's—Mr. Stanley.	Medical Times and Gazette, March, 1855, page 339.	M.	40	Popliteal; left.	Fist.	—
43	St. George's — Mr. Pollock.	Medical Times and Gazette, June, 1855, page 623.	M.	24	Popliteal.	Very large.	Five months.
44	St. Thomas's—Mr. Simon.	Medical Times and Gazette, October, 1854, page 442.	M.	30	Popliteal; right.	Very large, bulging on all sides.	Four months.
45	London—Mr. Critchett.	Medical Times and Gazette, May 5, 1855, page 437.	M.	25	Orbital; by anastomosis.	—	—

COMPRESSION TREATMENT.			FURTHER TREATMENT AND FINAL RESULT.	No.
How Long.	Result.	If failed, why.		
102 days.	Contracted to small size, but still beat.	So nearly cured, that the man returned to work for a year before it re-enlarged.	One year after discharge from the Hospital it again enlarged. He was readmitted and 3 days' compression effected a perfect cure. CURE BY COMPRESSION.	1
Eight days.	Became solid.	—	CURE BY COMPRESSION.	2
Fifteen days.	Became solid.	—	CURE BY COMPRESSION.	3
Not tried.	—	NOT TRIED.	The aneurism being diffused, compression was not tried. Ligature. Recovery.	4
Five months. (Interrupted.)	Became solid.	—	CURE BY COMPRESSION. The patient is still (three years after) quite well.	5
Eleven days.	Became solid.	—	CURE BY COMPRESSION.	6
Two days.	No effect.	It was not persevered with.	It was not deemed wise to attempt any plan of cure.	7
Thirty-two days.	Became solid.	—	CURE BY COMPRESSION.	8
Fourteen days.	Increased in size.	He could not bear efficient or constant pressure.	Ligature of the femoral. Recovery.	9
Fifteen days.	Increased in size, and threatened to burst.	Unfavourable, being diffused from the first.	Ligature of the femoral. Recovery.	10
Ten weeks.	Became solid.	—	CURE BY COMPRESSION.	11
Eight days.	Became solid.	—	CURE BY COMPRESSION. A slough formed in the skin beneath the pad.	12
Eleven days.	Increase in size of tumour, and swelling of the limb.	The pressure caused œdema of limb.	Ligature of femoral five weeks after desisting from pressure. Recovery.	13
Twenty-five days.	No alteration in tumour except thinning of its coat.	The man's health gave way, and there was œdema of the limb.	Bursting being imminent, ligature of the femoral was performed. Recovery.	14
Fourteen days.	Tumour increased a little, and did not solidify.	Pain; œdema of leg; excoriation of thigh.	Ligature of the femoral; subsequent bursting of the sac (sixth week). Disease of knee-joint. **DEATH.**	15
Twenty-five days.	Solidified somewhat, but the leg swelled; no diminution in size.	Acute erysipelas of the foot and leg.	Ligature of femoral 3 months after disuse of pressure. Recovery. *The tumour continues to beat as vigorously as at first.*	16
Ten days.	No benefit. The aneurism became diffused.	Impracticability of fixing the compressing instruments.	After symptoms of the tumour having become diffused, ligature of brachial. Recovery.	17
Sixty hours.	Became solid.	—	CURE BY COMPRESSION.	18
Six weeks.	Became solid.	—	CURE BY COMPRESSION.	19
Four days.	Became solid.	—	CURE BY COMPRESSION.	20
Eight days.	Became solid.	—	CURE BY COMPRESSION.	21
Three weeks.	Became solid.	—	CURE BY COMPRESSION. The pressure was applied over the femoral.	22
"Some time."	No effect on tumour.	The limb swelled, and great pain was caused.	Ligature of femoral; wound of femoral vein in the operation; gangrene of limb. **DEATH.**	23
—	No effect on tumour.	The limb swelled, and great pain was caused.	Ligature of femoral; sloughing of several toes. Recovery.	24
Eight months.	Solidified.	—	CURE BY COMPRESSION. It became almost solid in a few weeks, and then remained without further decrease for months.	25
One month.	Tumour increased; leg swelled.	Health giving way, and tumour enlarging.	Ligature of femoral. Recovery.	26
Two months.	Tumour increased in size.	Health giving way, and tumour enlarging.	Ligature of femoral. Sudden **DEATH** on eleventh day from disease of heart.	27
—	No benefit.	Became diffused, and opened into the knee-joint.	Ligature of femoral: gangrene. Amputation. **DEATH.**	28
Six months.	Did not consolidate.	Cause of failure not apparent.	Ligature of femoral. Recovery.	29
Thirty days.	Pulsation ceased, and it became solid.	—	CURE BY COMPRESSION.	30
Three months.	Became solid; small, but still beat.	—	CURE BY COMPRESSION, the artery remaining pervious.	31
Twenty days.	Became solid.	—	CURE BY COMPRESSION.	32
—	—	NOT TRIED.	Ligature of vessel above and below; clot then turned out. Recovery.	33
Four days.	No benefit.	Irritability of patient.	Ligature of femoral. Recovery.	34
Many months	At length became solid.	—	MR. F., IN ADDITION TO USE of pressure, broke up the coagula by forcible pressure; the cure was attributed to the latter practice.	35
—	—	NOT TRIED.	Ligature of external iliac. Recovery.	36
—	—	NOT TRIED.	Ligature of external iliac. Recovery.	37
—	—	NOT TRIED.	Ligature of common carotid. Secondary hæmorrhage. **DEATH** one month after operation.	38
—	—	NOT TRIED.	It had been opened as an abscess before admission. Ligature of femoral: gangrene; amputation. **DEATH.**	39
Three weeks.	Became solid.	—	CURE BY COMPRESSION.	40
A few hours.	No benefit; swelling of limb.	Thigh very fat; pad would not fit.	Ligature of femoral. Recovery.	41
A few days.	Leg swelled, and tumour increased.	Difficulty of compressing the artery without the vein.	Ligature of femoral. Recovery.	42
Four weeks.	Appeared to be cured, and then relapsed.	Not apparent.	Ligature of femoral. Recovery.	43
—	—	NOT TRIED.	Ligature of femoral. Recovery.	44
—	—	NOT TRIED.	Ligature of the common carotid. **DEATH** from repeated hæmorrhages four months afterwards.	45

No.	Hospital Surgeon.	Reference.	Sex.	Age.	Position of Aneurism.	Size of Aneurism.	Duration of Aneurism.
46	NorthStaffordshire—Mr. M'Munn.	Medical Times and Gazette, October, 1855, page 367.	M	26	Popliteal.	Turkey's egg.	Three mouths.
47	Bradford Infirmary—Dr. Benuett.	Medical Times and Gazette, October, 1855, page 367.	M.	29	Popliteal.	An egg.	Three weeks.
48	Durham—Mr. Shaw.	Medical Times and Gazette, October, 1855, page 367.	M.	29	Popliteal.	—	—
49	Leeds—Mr. Teale.	Medical Times aud Gazette, October, 1855, page 367.	M.	34	Popliteal.	Large.	—
50	Leeds—Mr. Samuel Hey.	Medical Times aud Gazette, February, 1854, page 111.	M.	58	Popliteal.	—	—
51	Liverpool Royal — Mr. Stubbs.	Medical Times and Gazette, January 20, 1855.	M.	56	Popliteal (diffused); left.	Very large indeed.	Five weeks.
52	Liverpool Royal—Mr. Stubbs.	Medical Times and Gazette, January 20, 1855, page 60.	M.	36	Popliteal; left.	Orange.	Three weeks.
53	Liverpool Southern—Mr. Minshall.	Medical Times and Gazette, January 20, 1855, page 311.	F.	27	Popliteal.	Goose's egg.	Four months.
54	Bradford—	Medical Times aud Gazette, Juue, 1855, page 570.	M.	44	Popliteal.	Large.	Two months.
55	Leeds—Mr. Teale.	Medical Times and Gazette, October, 1854, page 445.	M.	35	Popliteal; right.	Hen's egg.	Three mouths.
56	Doncaster Union—Mr. Moore.	Medical Times and Gazette, November 11, 1854. Page 497.	M.	36	Popliteal; right.	Filling the space.	Thirteen mouths.
57	Sheffield—	Medical Times and Gazette, page 518.	M.	42	Popliteal.	Large.	—
58	York—Mr. Husband.	Medical Times and Gazette.	M.	40	Posterior tibial. (Diffused.)	Very large.	—
59	Coventry—Mr. Troughton.	Medical Times and Gazette, October 13, 1855, page 368.	M.	17	Of the uluar, from wound.		Two weeks.
60	St. Bartholomew's—Mr. Paget.	Medical Times and Gazette, November 24, 1855, page 519.	M.	33	Poplitcal.	Of a large egg.	—
61	St. Mary's—	Medical Times aud Gazette, November 24, 1855, page 519.	M.	25	Popliteal; left.	Very large; knee-joint swollen.	Three weeks.
62	King's College—Mr. Fergussou.	Medical Times aud Gazette, November 24, 1855, page 519; and November 1, 1856, page 441.	M.	46	Popliteal; right.	An orange.	Ten weeks.
63	King's College—Mr. Fergussou.	Medical Times aud Gazette, December 8, 1855, page 567.	M.	36	Femoral, beneath Poupart's ligameut.	An orange.	Oue year.
64	Brightou—Mr. Blaker.	Medical Times aud Gazette, Jauuary 19, 1856.	M.	59	Subclavian; right.	An orange.	Two years.
65	St. Bartholomew's—Mr. Lawreuce.	Medical Times aud Gazette, Jauuary 26, 1856.	M.	36	Popliteal.	Small orange.	Two mouths.
66	King's College—	Medical Times and Gazette, March 29, 1856.	M.	30	Popliteal, from a blow.	"Large."	Six wecks.
67	Leeds—Mr. Teale.	Medical Times and Gazette, April 26, 1856, page 411.	M.	34	Popliteal.	Large.	—
68	Cheltenham—Dr. Brookes.	Medical Times and Gazette, October 4, 1856.	M.	57	Brachial.	Large and diffused.	Six weeks.
69	St. John's, Antigua—Mr. Jenkins.	Medical Times and Gazette, July 12, 1856.	F.	49	Femoral, nearly as high as Poupart's ligament.	An orange.	A month. (?)
70	St. Bartholomew's—Mr. Lawreuce.	Medical Times aud Gazette, June 14, 1856.	M.	15	Pulsating tumour in the head of the tibia.	An egg.	—
71	St.Thomas's—Mr. South	Medical Times and Gazette, August 9, 1856, page 143.	F.	40(?)	Of the common iliac.	Large.	One month.
72	St. Bartholomew's—Mr Stanley.	Medical Times and Gazette, November 1, 1856, page 441.	M.	40	Axillary; right.	Large.	Six mouths.
73	St.Thomas's—Mr. South.	Medical Times aud Gazette, November 1, 1856, page 441.	M.	48	External carotid; right.	—	—
74	The Westminster — Mr. Holt.	Medical Times and Gazette, November 1, 1856, page 441.	M.	18	False aneurism of the femoral.	Very large.	Seventeen weeks.
75	The Loudon—Mr. Luke.	Medical Times aud Gazette, November 1, 1856, page 441.	M.	38	Popliteal.	Large pear.	—
76	The Westminster — Mr. Holt.	Medical Times and Gazette, November 1, 1856, page 441.	M.	28	Popliteal; left.	Large orange.	—
77	St. Bartholomew's—Mr. Paget.	Medical Times aud Gazette, November 1, 1856, page 441.		38	Popliteal; left.	Large orange.	One year.
78	Guy's—Mr. Hilton.	Not yet published.	M.	40	Femoral; close to Poupart's ligament.	—	—

THE CHARITABLE ESTABLISHMENTS IN PARIS.—In the Reports of the Préfet of the Seine to the Municipal Council of Paris, there is contained some interesting information upon the charitable establishments of that metropolis. The city furnishes two annual supplies towards their support:—1. The *extraordinary*, which amounts this year to 1,250,000 francs, and is applied to the reconstruction of hospitals (the estimates for necessary repairs of this kind amount to eighteen millions, without counting those of the Hotel Dieu), refurnishing, supplies of linen, etc. 2. The *ordinary* supplies vary, and have in view the making good deficiencies in the revenues of the establishments, these having long since been insufficient for their demands. This sum has risen from 4,438,181 francs in 1853 to 7,206,137 for 1857. The increase does not solely depend upon increased dearness of everything, but also upon the augmented charitable assistance given. Thus, while in 1853, there were but 6440 permanent beds to be maintained in the hospitals, the provision for 1857 is 6984. This is without counting supplementary beds, rendered necessary by the oc-

COMPRESSION TREATMENT.			FURTHER TREATMENT AND FINAL RESULT.	No.
How Long.	Result.	If failed, why.		
Three weeks.	Became solid.	—	CURE BY COMPRESSION.	46
Nine weeks.	No benefit; increased size.	Not apparent.	Ligature of femoral. Recovery.	47
Four days.	Became solid.	—	CURE BY COMPRESSION.	48
Thirty days.	No benefit.	Leg swelled, and aneurism enlarged.	Ligature of femoral. **DEATH** from pyæmia. (Ninth Week.)	49
One month.	No benefit.	Leg swelled, and aneurism enlarged.	Ligature of femoral. Recovery.	50
—	—	NOT TRIED.	Ligature of femoral. Gangrene. **DEATH**. (Five weeks.)	51
One month.	Became solid.	—	CURE BY COMPRESSION. Six weeks after the cure was complete, he having returned to work, rupture of the artery at the same spot took place. Death from gangrene followed.	52
—	—	NOT TRIED.	Ligature of femoral. Recovery.	53
Twenty days.	Became diffused.	Skin of thigh ulcerated, and aneurism gave way.	Amputation of thigh. Recovery.	54
Twelve days.	Became solid.	—	CURE BY COMPRESSION. The pressure was frequently intermitted.	55
Five days.	Much swelling of leg.	Febrile disturbance; tumour threatening to give way.	Ligature of femoral. Gangrene. Amputation. **DEATH**.	56
—	—	NOT TRIED.	Ligature of femoral. Gangrene and secondary hæmorrhage. **DEATH**.	57
Some days.	Leg swelled, and tumour increased.	The tumour threatened to burst.	Amputation. Recovery.	58
—	—	NOT TRIED.	Ligature of the ulnar. Recovery.	59
—	—	NOT TRIED.	Ligature of the femoral. Recovery. The man being in bad health, and suffering from syphilis, was not thought a fit subject for compression.	60
—	—	NOT TRIED.	Ligature of the femoral. Recovery. Its increase in size was too rapid to admit of delay.	61
Many weeks; second trial three days.	He was discharged for a few weeks; the tumour being much smaller, but still not solid. On the second admission it solidified after three days' treatment.	—	CURE BY COMPRESSION.	62
—	—	NOT TRIED.	Ligature of the external iliac. **DEATH** from pleurisy on the sixth day.	63
—	—	NOT TRIED.	Ligature of the subclavian. Repeated hæmorrhages. **DEATH** on the twelfth day.	64
—	—	NOT TRIED.	Ligature of the femoral. Recovery. There was no motive for not trying compression.	65
Ten days.	The aneurism increased in size, and became diffused.	The aneurism (probably a false one) and having very thin coats. It increased rapidly in size.	Ligature of the femoral. Gangrene of whole foot. Recovery.	66
Sixteen days; interrupted.	Became solid and pulseless.	—	CURE BY COMPRESSION.	67
—	—	NOT TRIED.	The tumour was laid open, and the artery tied above and below the wound. Recovery.	68
—	—	NOT TRIED.	Ligature of the external iliac. Diarrhœa, &c. **DEATH** on the thirteenth day.	69
—	—	NOT TRIED.	Ligature of the femoral in Hunter's canal. Secondary hæmorrhage. Pyæmia. **DEATH** in the fifth week.	70
—	—	NOT TRIED.	Ligature of the abdominal aorta. Collapse. **DEATH** on the second day. (Forty-two hours.)	71
—	—	NOT TRIED.	Ligature of the subclavian. Pleurisy, &c. **DEATH** on the third day.	72
—	—	NOT TRIED.	Ligature of the common carotid Paralysis. **DEATH** on the third day.	73
—	—	NOT TRIED.	Tumour laid freely open, and the bleeding vessels tied. Doing well.	74
One month.	It appeared all but cured, when sudden increase of size took place, and it became diffused.	The tumour became diffused, and mortification of the foot commenced.	Amputation of the thigh on account of gangrene of the foot. Secondary hæmorrhage. **DEATH** in the third week.	75
Several weeks.	At first it solidified, and diminished much in size; but subsequently it increased and threatened to ulcerate.	It increased in size, and was on the point of ulcerating.	Amputation of the thigh. Recovery.	76
Six weeks; interrupted.	It decreased much in size, and got more solid; but the improvement being slow ligature was performed.	Ligature was preferred on account of the slowness of the cure.	Ligature of the femoral. Under treatment.	77
A few days; interrupted.	The man could not bear it.	The tumour did not allow sufficient space.	Ligature of the external iliac. Under treatment.	78

currence of epidemics. Moreover, in 1854, the municipal administration organized the *secours à domicile*, through which means were treated at their own houses, in 1855, 30,915 patients, at a mean duration of treatment of 17 days per case, the mean duration in hospitals being 20 days. Still larger numbers were treated in 1856, and the reporter, calculating the number of beds that would have been wanted for these in the hospitals, and the actual increase of beds, states that the virtual increase amounted in 1856 to 2000, as compared with 1853. The number of beds in the *hospices* were 9846 in 1853, and it is now 9935, besides 853 which are paid for at private residences. The reporter complains that, although the municipality has shown every disposition to meet these increased exigencies, public benevolence, in the shape of donations and legacies, has not kept pace with the wants of the time; and that, all things in proportion, less is now given than heretofore to the Paris hospitals, so that they are now, as far as this source of income is concerned, more than seven million francs deficient, a burden the city funds can ill support.

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Medical Times & Gazette.

SATURDAY, NOVEMBER 22.

THE SUPERINTENDENCE OF THE INSANE.

The modern treatment of Insanity is one of the greatest triumphs of the present age; a peaceful triumph over cruelty and oppression, and an inestimable boon to a great section of our suffering fellow-creatures. One shudders at the recollection that at no very distant period the unfortunate person who was afflicted with one of the most dreadful maladies which can befal human nature was confined in dark subterranean dungeons, was excluded from social intercourse with his fellow-creatures, and was even bound with chains to his miserable cell. Even now the high and dismal walls, the barred and narrow windows of some of our existing asylums for the insane, recal the gloomy horrors of the past, when the treatment of insanity was supposed to consist in the infliction of torture, the imposition of restraint, and the despotic influence of terror. But the dawn of a better day has broken in upon the sufferings of the lunatic; the light of the sun now shines into his chamber; he is allowed to walk freely in the air of heaven; his ear is soothed by the song of birds, the strains of music, and the voice of his fellow-man; his eye is delighted by pictures; and his body is exercised by healthy toil or seasonable amusement. Even during the paroxysms of excitement, to which many insane persons are subject at intervals, he is no longer restrained by mechanical appliances, but is placed in padded rooms, which combine perfect freedom of motion with security against violence. In every respect, therefore, the treatment of insanity is, or may be, conducted upon humane and enlightened principles; and the objects and tendencies of all therapeutical means are not, as formerly, to degrade the unhappy patient below the level of the brute, but to elevate him from his temporary depression, to restore him to the rank of a reasonable being, and to lighten his darkened soul with joy and hope.

That these views have been generally received and conscientiously carried into operation is abundantly testified by the improved condition of our private and public asylums; by the now comparatively cheerful aspect of Bethlehem and St. Luke's; and by the erection, in various parts of England and Wales, of magnificent structures for the reception of pauper lunatics. So great has been the care bestowed upon the latter unfortunate class that numerous applications are made to allow the admission of persons of the middle and upper ranks of life into the public pauper Asylums.

But while thus admitting the great improvements which have been effected in the treatment of the insane and in the construction of asylums, it must be allowed that much remains yet to be accomplished; and the benefits now to be sought for are in the *personnel* rather than in the *matériel* of our management of the insane. Enormous sums of money have been spent in bricks and mortar for the stately edifices which have risen up in many parts of the kingdom; and vast tracts of land have been covered by Lunatic Establishments, comprising every appliance both for the safe keeping of the patients and for their due employment out of doors. But when we glance at the constitution of the governing body by which these huge structures are controlled, and by which indeed the whole management of lunatics, rich and poor, is conducted, we are led to protest, in the interests of the public, against the undue preponderance of other elements than the Medical in the management of the insane. In nearly all our public asylums, the authority of the Medical Superintendent is controlled and even thwarted by Committees consisting of laymen; and even when this is not the case, the division of the Medical management, the onerous nature of the duties, and the inadequacy of the salaries, all tend to diminish the respect due to the Medical Officers, and to limit most materially their sphere of usefulness. Even the great size of the Asylums themselves has become an evil of no ordinary description, when considered in connexion with the deficient amount of Medical superintendence and the smallness of the remuneration offered for Medical talent. At the Salpêtrière in Paris, containing about 1300 patients, there are three Physicians and two Assistant-Physicians; and at the Bicêtre, which has 800 patients, there are two Physicians and two Assistant-Physicians; and among these there are several who have attained eminence in their Profession. At Bethlehem Hospital, on the other hand, there is only one Physician and a subordinate Medical Officer; and at Hanwell and Colney Hatch Asylums, the first containing some 1200 patients and the second about 1500, there are in each only two Medical Superintendents, with salaries varying from £200 to £250 per annum! It is utterly impossible that men in the highest grade in the Profession can compete for appointments in which the duties are so great and the rewards so small.

But if we turn our attention from the management of the Asylums to the constitution of the Lunacy Commission, which is supposed to superintend the treatment of all insane persons throughout the country, we have, as Medical men, still further reason for complaint. The Medical element in this Commission is in a woful minority, while all the patronage of the Board is vested in the Lord Chancellor and in the Chairman of the Board, a nobleman distinguished for his philanthropy, but certainly not remarkable for his acquaintance with Medicine or Medical affairs. The result is that the Commission is filled with lawyers, the nature of whose studies and avocations cannot surely render them peculiarly well qualified to direct insane patients, while the number of Medical men is only three, and one of these is a gentleman now considerably advanced in years. The idea of three Medical gentlemen, however great may be their energy, exercising a sufficient degree of vigilance to inspect all the lunatic establishments, private and public, in England and Wales, is too preposterous to require discussion; nor is the absurdity lessened by a knowledge of the fact that these three Medical Commissioners hunt in couples with three lawyers, each Medical Commissioner being accompanied by a lawyer in his official visits. There should be at least three times the present number of Medical Commissioners, and the assistance of the lawyers might be easily dispensed with.

Notwithstanding the great improvement which has been exhibited in most of the *private* Lunatic Asylums, some are still loitering behind the spirit of the age in regard to the treatment of the insane; and there is reason to fear that in

some instances the old and now exploded system still prevails. The visits of the Commissioners being necessarily few, and occurring at long intervals, the abuses of such establishments are not sufficiently investigated; and even when the visits are paid, it may be suspected, in some instances, that the patients are duly prepared for the ordeal, and that the true state of things may be carefully concealed. We believe that such cases are rare; but still the paucity of Medical Commissioners, and the consequent rarity of their inspections, must tend to encourage and perpetuate abuses where any still exist.

The composition of the Medical part of the Board should be watched with great care; and we cannot but remark that these appointments ought not to be made wholly by the laity. In other words, the voice of the Medical Profession should, in some measure at least, direct the choice. Only one of the present Commissioners is a member of the Royal College of Physicians of London; and without unduly magnifying the importance of that College, we conceive that it is at least quite possible to find among its members other gentlemen who are capable of performing satisfactorily the duties belonging to a Medical Commissioner in Lunacy. Nor are we quite convinced that the Superintendents of County Pauper Lunatic Asylums are necessarily the best qualified to fill the post of Commissioners, although an infusion from that source may be desirable. The duties of the Commission are not confined to paupers, but extend to ladies and gentlemen of wealth, intellect, and education; and while we rejoice at the humane treatment of lunatic paupers and criminals, we do not admit that the same treatment is required for all cases. Without expatiating further at present upon this part of the subject, we may remark that the Medical Profession offers but very few appointments of honour and emolument; but when these are to be bestowed, it is only just that they should be given as the well-merited rewards of superior education, learning, and Professional position.

The deficiency of the Medical element in the Commission is at present a crying evil, which ought speedily to be remedied; and we hope that another Session of Parliament will not pass away without an addition being made to the Medical members of the Commission of Lunacy.

THE WEEK.

The question as to the disposal of the Metropolitan Sewage bids fair to be settled at last to the satisfaction of the public. A plan has been proposed by Mr. M'Clean, to take the sewage from West Ham station in Essex through the River Crouch into the German Ocean. Sir Morton Peto so strongly advocates this mode of disposing of the sewage that he has offered, in a letter to the Chairman of the Board of Works, to execute the works for a fixed sum, if the Board will allow 4 per cent. on the outlay. He says—"Let us have the manure from the sewage and I will guarantee its (the plan) being carried out. I believe you will find it the best plan in every point of view, and leave the purification of the Thames not a matter of doubt but of certainty." Here, then, the great desiderata are attained, the utilization of the sewage and the purification of the Thames, and on terms most easy for the ratepayers. Sir Morton Peto gives the Board of Works an excellent opportunity of escape from the discredit into which they have so rapidly fallen.

Mr. Shain, of Liverpool, has sent us an account of the trial Laurie v. the Merchants' and Tradesmen's Mutual Life Assurance Company, containing some curious disclosures. The life of Mr. Laurie was proposed for Assurance in the "Industrial and General" Office. Mr. Shain was the Medical referee, and on his statement, that "some members of the proposer's family have died of phthisis," the office refused to take the life unless twelve years were added to the age to cover the additional risk. Mr. Laurie declined to accede to these terms, and the proposal was taken, in 1854, to the "Merchants' and Tradesmen's." In the answers to the questions from this office, Mr. Laurie states distinctly that two of his brothers died from *diseases of the chest* at the age of 25 and 27; but Mr. Shain, who is again the Medical referee, in answer to the question, "Has any part of his family ever suffered from hereditary disease," says, "*Not to my knowledge.*" He says nothing about the phthisis in the brothers, and recommends Mr. Laurie for assurance as "a very healthy man." Mr. Laurie dies, the Company dispute the policy and gain a verdict. It is evident that Mr. Shain's second report was not so clear and explicit as his first; and our object in noticing the case will be served by the publication of the following letter, and a caution to Medical men never to be allowed to colour their medical reports in any way by the representations of Insurance agents—these persons being always interested pecuniarily in getting lives accepted:—

My dear Sir,—Let me have the enclosed early on Thursday. Mr. Laurie is a remarkably healthy-looking man, and there is no more consumption about him than me; but, from the fact of two brothers dying of chest-disease, the Directors in London boggle at it.

I enclose you the proposal with my report, and will thank you to make your report a little stronger, which you can conscientiously do by adding that "I do," as a very good life, all his organs and constitution being perfectly sound, or words to that effect. Ever yours sincerely.

Robert Webster.

A novelty in the history of Medical teaching has been announced this week. The Hospital for Consumption and Diseases of the Chest at Brompton has been recognised by the Apothecaries' Company, and the Army, Navy, and East India Company's Medical Departments; students being allowed to attend the practice for 3 months, instead of attending for the same period at a general hospital. This recognition of a Special Hospital as a school of Medical education will startle many; but, under certain restrictions, we are disposed to consider it a step in the right direction. At the Brompton Hospital a large and important class of disease is treated, and the 230 beds it contains offer a far wider field for observation than is to be found in the Medical division of the great majority of Hospitals already recognised—while for the study of the most destructive disease which afflicts humanity it stands unrivalled. It is to be hoped that the Physicians will make the vast opportunities they possess conducive to the interests of the pupils, and give them every facility for becoming practically acquainted with the diseases of the lungs and heart. When other institutions, such as the Fever Hospital and the Hospital for Sick Children, attain the size prescribed by the examining bodies we should be glad to see them also admitted to the same privileges as the Brompton Hospital. It would also be well if the requirements of the East India Board were followed, and a short attendance demanded from pupils upon the practice of an Eye Hospital, until the General Hospitals adopt the plan we have long advocated of opening special wards for Eye Diseases under a special clinical teacher. This plan is followed at Guy's and St. Mary's with excellent results, and must be imitated by the other great hospitals, or a host of small special institutions will continue to spring up around them.

Dr. Reed, who was employed in the East as Physician to the Crimean Railway Expedition, and afterwards as a Regimental Surgeon to the Irregular Cavalry known as "Bashi-Bazouks,"

has appealed against what he calls "Medical despotism, and official injustice;" but, from his own statement of his own case, he appears to have been so very wrong in his proceedings, that the authorities were compelled to adopt the course they did. In the first place, he refused to obey a foreign Surgeon, placed over him by Government; his duty as a Military Officer being clearly to obey his superior, and to make any complaint afterwards to the Government. In the next place, he persisted in prescribing homœopathic medicines, notwithstanding the express prohibition of his superior officer, the Deputy-Inspector-General, and wrote to General Beatson stating that the *authoritative desire* of his superior officer would "have no weight" with him as a prohibition. According to the terms of his agreement in the following article, he clearly lost all title to pay or gratuity:—"4. In case of inefficiency or misconduct on our part, certified by the Inspector-General, and countersigned by the Senior British Officer, we may be liable to immediate dismissal, with a free passage home, but with no claim upon the Government for the abovementioned gratuity." Dr. Reed, as a Regimental Surgeon, was for the time a soldier, and subject to Military law; so that he was clearly guilty of misconduct, in refusing to obey his superior officer.

It was announced in our advertising columns last week that the vacancies for Assistant-Surgeoncies in the East India Company's Service would be twenty-two instead of ten, as formerly advertised. It is to be hoped that the competition for these valuable appointments will be more spirited than on any former occasion. A good idea of the nature of the examination may be gathered from the questions given at three former examinations in the numbers of this Journal for January 13 and September 1, 1855, and March 1, 1856.

We have just received a report, reprinted from the *Brighton Gazette*, containing the particulars of a most extraordinary inquest recently held at East Grinstead. Instances of vexatious inquests are, unfortunately, but too frequent; but a more aggravated instance than the present, promoted, too, by a Professional man upon the most frivolous grounds, we do not remember to have heard of. It seems there is at East Grinstead a college for decayed persons, in which Mr. Rogers, a Fellow of the College of Surgeons, holds the appointment of assistant warden, having duties of inspection and superintendence. He does not attend the inmates in his Professional capacity; and when any of these are ill, a Practitioner of the town, Mr. Whyte, is called in. Prior to Mr. Rogers' appointment he had been concerned in an operation for cataract, performed at the Middlesex Hospital, upon an old man named Taylor; and finding, on his arrival at East Grinstead, that his old patient was one of the inmates of the College, he treated him with great kindness and attention. After a while, Taylor, in about his 84th year, fell ill; and, although Mr. Whyte was called to him, Mr. Rogers still continued occasionally to see him in Mr. Whyte's absence. This was, no doubt, injudicious, especially as feuds were evidently raging within the College. Mr. Whyte, informed that Mr. Rogers had felt the man's pulse and examined the seat of pain, and that the old man objected to this (which, however, he denied having done), left peremptory orders that he should not visit the patient. Mr. Rogers, in his capacity of warden, persisted in doing so, and coming in one day while Mr. Whyte was there, the latter sent for a policeman to remove him, and stripped off his coat to effect the operation himself. On this painful occasion, the demeanour of Mr. Rogers is said to have been quiet, while the turbulent procedure of his adversary disturbed the last hours of the dying man. No sooner, however, was the patient dead, than Mr. Whyte, in conjunction with a clergyman attached to the institution, obtained an inquest, on the alleged ground that the man's death had been caused or hastened by Mr. Rogers having pulled him about and teased him, by examining him. A long inquiry followed, which ended in the jury declaring that the deceased had sunk from the debility of old age, and that Mr. Whyte's conduct, in causing the inquest to be held, was "frivolous and uncalled for." Such scenes are truly deplorable, and tend to lower our Profession in the eyes of the public.

Marylebone and its Workhouse are becoming notorious, not to use a stronger expression. One day the town is startled by the news that two old maiden ladies have starved themselves to death rather than accept parochial aid. Then we have disgraceful stories of flogging women in the Workhouse, and last week a mother and four children are found dying of hunger in the centre of the opulent parish. The mother did die, though the Surgeon, with the humanity common to our Profession, adopted every expedient that science could afford for her relief. It is stated that the woman had been an inmate of the Workhouse before, and starved herself rather than return to it. If so, what a life she must have led there, to prefer such a death for herself and children! It is said that she was insane, and perhaps she was, but we must ask, are the powers of the Medical Officers limited to futile attempts to relieve the effects of starvation? Is the system of parochial relief beyond their control or influence?

The City Gas Company has yielded to the late agitation. An arrangement is in progress for amalgamation with the Great Central Company, which will lead to the removal of the works from the City to Bow Common. This yielding of a large company before the efforts of the press and the force of public opinion, is an encouragement to those who exert themselves to remove all the causes which prove injurious to the public health.

The examinations for the degree of Bachelor of Medicine at the University of London have just concluded, and the result has been that nine gentlemen have succeeded in obtaining the degree, eight having been placed in the first division, and one in the second. It must be a subject of deep regret to all the friends of the University, and to all well-wishers of the Profession, that the number of Graduates is so small. We have repeatedly noticed, the praiseworthy efforts made by the University to improve the state of Medical education; and it is to be deplored that there are so few who are anxious to avail themselves of the advantages offered to them by the establishment of the Metropolitan University. From the fact that, of nine successful candidates, eight were placed in the first division and only one in the second, it may be inferred that the former number displayed unusual excellence, and that they were the *élite* of the schools; and it may be further surmised that the mass of candidates who do not aspire to honours, but merely aim at a degree in Medicine, repair to some other University than that of London. Either the standard adopted by the University of London is too high, or that of other Universities is too low; but it should not be forgotten, that while Bachelors and Doctors of Medicine ought to be gentlemen of superior Professional attainments, it is not absolutely essential that all should be prizemen and medalists. It is to be hoped that some steps will be taken during the ensuing Session of Parliament to equalize the University tests of qualification; and, while it is to be desired that in some cases the demands upon the candidates should be materially increased, it may be fairly a matter of question whether other standards might not be somewhat lowered.

OUR GREAT ONES OF THE PAST.

JOHN ARBUTHNOTT, M.D., F.R.S.—(*Continued from page* 497.)

In our last we traced out the career of Arbuthnott to the year 1720-21. His health being indifferent, and his brother having come over from Paris, the two brothers started off for Bath, in the autumn of 1722. Pope hereupon has a characteristic letter to his friend Digby :—

September 1, 1722.

Dr. Arbuthnott is going to Bath, and will stay there for a fortnight or more, perhaps you would be comforted to have a sight of him whether you need him or not. I think him as good a Doctor as any man for one that is ill, and a better Doctor for one that is well. He would do admirably for Mrs. Mary Digby; she need only to follow his hints to be in eternal business and amusement of mind, and as active as she could desire. But indeed I fear she would out-walk him, for (as Dean Swift observed to me, the very first time I saw the Doctor) *He is a man that can do everything but walk.* His brother, who is lately come to England, goes also to the Bath, and is a more extraordinary man than he, worth your going thither on purpose to know him. The spirit of Philanthropy, so long dead to our world, is revived in him; he is a philosopher all of fire; so warmly, nay so wildly in the right that he forces all others about him to be so too, and draws them into his vortex—He is a star which looks as if it was all fire, but is all benignity, all gentle and beneficial influence. If there be other men in the world that would serve a friend, yet he is the only one, I believe, that could make an enemy serve a friend.

Excepting the fact that on the 30th of September, 1723, he was chosen second Censor of the College of Physicians, we glean but little record of Arbuthnott until 1727, when we find the same collegiate body numbering him among their "elect," on October 5, and listening in full conclave soon afterwards to a Harveian oration, delivered in his classical style. The oration, as a matter of course, was loud in its praises of Harvey, whom the orator compared as a philosopher with Newton, and whose actual labours he very clearly comprehended and defined. Various points and facts in the history of our science were also touched on with masterly care. The views of Michael Servetus, of Realdus Columbus, and of Cæsalpinus, on the circulation of the blood, were not forgotten, but were represented as buried or as lost until the true man came to announce his discovery, and to set the seal on his mission, in the Lecture Hall of the Royal College.

The oration is remarkable in that it contains a suggestion for keeping a journal of the weather, and of the prevailing diseases as influenced by meteorological changes. This idea was carried out soon afterwards by Professor Mussenburg, and by a society of learned and ingenious gentlemen of the profession in Edinburgh, who met to discuss the history of acute diseases as depending upon the constitution of the seasons. These labours were but transitory. Other influences, which we have not time to name, came soon afterwards into force in medicine. An erratic genius, by the name of Cullen, was not far off to stop such inquiries, and to preach up, in the name of pills and plasters, blisters and lancets, the cure, the whole cure, and nothing but the cure. Cullen is dead; no more of him now. We have come back, happily, in 1856, to the Arbuthnott idea, which is left with confidence in the hands of the Registrar-General and the Epidemiological Society.

In this same year, 1727, Arbuthnott brought before the world the most classical, if not the most useful, of his works—"The Dissertation on Coins, Weights, and Measures, explained and exemplified." This work, as its author states apologetically, is one of labour more than of judgment. "He proposed to get no reputation by it, and he hoped to lose none." The book was dedicated to the king, in a poem written and signed by Charles Arbuthnott, one of the sons of the Doctor, then a student of Christ's College, Oxford, who afterwards entered the Church, but with difficulty, because he had fought a duel. Arbuthnott himself had no love for the Georges, but the son might show his loyalty with advantage, and without compromising the father.

For a considerable period after this event our author gave his name to no productions, but some of his biographers say, on no very definite evidence, that for three or four years now about, he was busied in the composition of various political pamphlets. It is more evident, however, that at this time he was in very indifferent health; for, in a letter to Swift, dated June 9, 1729, he says that "he is bad of a constant convulsion in his heart, so that he is likely to expire sometimes." A squib, called "A Brief Account of Mr. John Ginglicutt's Treatise concerning the Altercation or Scolding of the Ancients," published in 1731, is attributed to him. It is doubtful whether he wrote it; but whether he did or did not, is of no moment, for it has little brilliancy or point, and its meaning is dead. The "Art of Political Lying," also brought out in this year (1731) is a more pointed satire, and, in all probability, did come from our friend. We pass it over, however, with the mere mention of it, to refer at greater length to the *Essay on Aliments.* (a)

This composition was done while the writer was still in indifferent health, and, therefore, but ill prepared for the labour. The work went ultimately through many editions, and to the third edition there were added "Practical Rules of Diet in the Various Constitutions and Diseases of Human Bodies." Somewhat inconsistent of Arbuthnott was the long title of this work, since in earlier days he had been first to laugh at long titles. From the title-page of this treatise we discover that he was, by this period, a Fellow of the Royal College of Physicians of Edinburgh.

The reason assigned by the author for writing the book on "Aliments" was, that Dr. Cheyne had, some years before, written an essay on "Health and Long Life," which had "produced even sects in the dietetic philosophy." Arbuthnott was sometimes appealed to in these "symposiac disputations" amongst his friends; and having remarked that the dietetic part of medicine depended as much as any of the rest on scientific principles, he was called to make good his assertion. He was from home, "absent from his books, at the time he composed this treatise," and he apologizes earnestly for its short-comings. "I can say," he adds, "but little of the merit of the performance, but a great deal of that of the subject; for surely the choice and measure of the materials of which the whole body is composed, and what we take daily by pounds, is at least of as much importance as of what we take seldom, and only by grains and spoonfuls."

Throughout this essay there is a rude physiology, far more advanced here and there than might *à priori* be supposed; erroneous, oftentimes, of necessity, according to our present standard of knowledge; but even in its ignorance, common-sense, and in its experimental part often bordering on some great truth. He saw that in serum of blood there was a principle identical to white of egg; but the serum was more saline, and, under distillation, yielded a volatile alkaline salt. In some diseases, as scurvy, an alkaline state of the blood obtains. This alkaline acrimony indicates the use of vinegar, and of acid fruits, such as oranges and lemon-juice. "Heat, thirst, hot belchings, foulness of the tongue and breath, a bitter and hot taste in the mouth, sickness, loathing, bilious vomiting, stools with a cadaverous smell, pains in the belly with heat, are symptoms of an alkaline state of the humours in the stomach and bowels."

"Such a state disposeth the humours of the body to heat, inflammations, and putrefaction, hinders nutrition, and often causes eruptions on the skin, dark, livid, lead-coloured, and gangrenous, and what is commonly called the hot scurvy."

Now and then, too, he adds a practical fact which will bear reviving. We give one illustration: If, he says, there be a specific in aliment for rheumatism, it is whey. "I knew a person, subject to this disease, who could never be cured by any other method but a diet of whey and bread."

Arbuthnott was a trustworthy observer: will anyone test the accuracy of his observation in this particular?

The ultimate fact at which he seemed to have arrived in his contemplation of aliments was, "that all the intentions pursued by medicines might be obtained and enforced by diet." These are his own words as they were his thoughts. Had he lived in these times, he would have seen to the bottom of the

(a) An Essay concerning the Nature of Aliments and the Choice of them, according to the Different Constitutions of Human Bodies, in which the Different Effects, Advantages, and Disadvantages of Animal and Vegetable Diet are explained. *By John Arbuthnott, M.D.* London: 1731.

homœopathic deceit without spectacles. It was, indeed, from the ignoring by men at large of such facts as he taught, that Hahnemann succeeded in planting his absurdities in nourishing soil.

The treatise on aliments was well received, and its author promised to take up the subjects of air, rest, and motion, in the same manner.

A note still remains for the year 1731. There died at this time in Scotland, aged 62, one Colonel Charteres, a man reported as of most execrable character. Upon him an epitaph was written, which is said confidently to be from the pen of Arbuthnott. It is unique in its way. *Vide* :—

Here continueth to rot
The body of Francis Charteres,
Who, with an indefatigable constancy and inimitable
uniformity of life,
Persisted,
In spite of age and infirmities,
In the practice of every human vice,
Excepting prodigality and hypocrisy;
His insatiable avarice exempting him from the first,
His matchless impudence from the second.
Nor was he more singular in the undeviating gravity of
His manners than successful
In accumulating wealth;
For, without trade or profession,
Without trust of public money,
And without bribe-worthy service,
He acquired, or more properly, created
A ministerial estate.
He was the only person of his time
Who could cheat without the mask of honesty,
Retain his primeval meanness when possessed of
Ten thousand a-year:
And, having daily deserved the gibbet for what he did,
Was at last condemned to it for what he could not do.
Oh, indignant Reader!
Think not his life useless to mankind:
Providence connived at his execrable designs,
To give to after ages a conspicuous
Proof and example
Of how small estimation is exorbitant wealth
In the sight of God, by his bestowing it on
The most unworthy of all mortals.

In 1732, Arbuthnott went to work tooth and nail in endeavouring to reform certain abuses and tricks which were being carried on under the title of "Charitable Corporations." This effort did not prevent him, though he became the victim of asthma and had been obliged to remove to Hampstead for change of air, from bringing before the public, in accordance with his promise, an essay on the "Effects of Air on Human Bodies."(b) It has been surmised that he was led to the study of this work from being himself a sufferer from asthma. This is mere invention, for the author gives sufficient reasons for his undertaking. The subject had long been in his thoughts, and there was no one else who chose to consider it. The book was, however, written at a period when the increasing bad health of its master led to frequent interruptions. The preface is loaded with apologies. In it he gives us an insight into the character of his mind, which will have already been detected by the critical reader. "That weariness," he observes, "in thinking about the same subject, incident to me, perhaps, with others of mankind, made me abandon several particulars too soon."

Arbuthnott, at least, knew his own peculiarities. Brilliancy of thought depends often on shortness of exertion; and the pungency of wit lies in the exhibition of the greatest possible amount of mind-force in the smallest possible space of time. Your true wit is a thinking rifle. You touch him on the explosive part, and he goes off so sharply, and with such effect that you start back, and, supposing yourself not to be the target, your wonder, or your admiration, or both, are carried out of bounds electrically. But here your wit ends his accomplishments; the sharp, telling crack is his distinguishing trait. He must have time to reload.

Arbuthnott, according to all his cotemporaries, was not without the peculiarities of his class. He was a momentary philosopher—so Nature formed him; the weariness of a long stretch of thought was more than he could bear.

The essay on the "Effects of Air," which, in the consideration of living rifles and other stuff of the same calibre, we had forgotten, is, notwithstanding the peculiarities of the man, one of the most remarkable books in the literature of Medicine, and by many odds the best scientific work of Arbuthnott. There is genius in its every page, a true living soul in every paragraph, an inseeing into things to him almost indefinable, and a glance at facts that were to come, which can only be appreciated by those who will take the trouble to read the essay through with care, and with an eye fixed on the knowledge of the present day. There had been no Dutrochet or Graham to tell Arbuthnott the secret of osmosis; no Priestley, Black, Lavoisier, or Liebig, to explain to him the nature of oxygen, or the meaning of respiration; yet hear how this philosopher could reason on these subjects:—"The blood in the lungs is warmer than on the surface of the skin; the coat of the vessels (the pulmonary artery) extremely thin, and those exposed to the outward air; and yet the perspiration from the lungs is not half of that from the skin. What is the reason of this small proportion? Is the air absorbed? For the quantity of perspiration is the difference between the air absorbed and the humour prepared. There are several things may be said for and against the air's entering the blood-vessels of the lungs in respiration.

"From the flaccid state of the lungs of animals that die *in vacuo*, it seems evident that the lungs do not expand themselves upon the exsuction of the air, consequently the air is sucked out or escapes through the blood-vessels of the lungs; else, if retained, it would expand and swell them; if the air has a free egress through the coats of the vessels of the lungs, it may have a free ingress. On the other hand, attempts to force air into the blood-vessels of the lungs by the windpipe, have proved unsuccessful, and the lungs of animals that die *in vacuo* afterwards swell in the air-pump. Things may happen in a live animal, which will not succeed in a dead one. *Air will pass through any membrane when moist.* The quick restoration of the balance of the air within and without human bodies, shows that there is a free communication; and it is probable that it is so in the lungs, as well as in other parts of the body."

It is unnecessary to indicate how deep a knowledge is here shown of facts, which have required the space of a hundred and twenty long years to be brought to a state of demonstration and acknowledgment.

We could rest long in admiration of this wonderful essay, but time passes. One word more. We have seen that Arbuthnott's mind was of the acute, tense, electric order. This fact is admirably shown in the work now being pursued. In one sentence he gives a definition of the physiological use of respiration. The sentence is the man; and if he had lived only to emit this short saying, he would have sworn himself great. "Respiration is the second digestion." Think as you will, modern chemist, with Liebig and eremacausis right near, and no profounder definition of the fact can be given. Our ideas about details may change, and Liebig and eremacausis may even be forgotten; but this immense generalization, embraced in five words, is an indelible utterance.

In so far as we have traced out the career of Arbuthnott, we have referred to such only of his literary works as are known positively to have been written by him. There are, however, various tracts and small essays rusting in old libraries, and bearing no author's name, which have been fathered on him without much regard to historical accuracy. At one time De Foe's immortal "Robinson Crusoe" was believed to have been written by Arbuthnott—an entire fallacy long since exploded. Of the other political productions classed as his works, some bear internal evidence of having come from sources quite different, and from minds of a stamp much inferior to his. "Harmony in an Uproar," "The Congress of Bees," "The Art of Selling Bargains," "The Longitude examined for Longitudinarians," "The Petitions of the Cooks and Colliers," "The Life and Adventures of Don Bilioso de l'Estomac," "The Most Wonderful Wonder," "The Manifesto of Lord Peter," "The Devil to Pay at St. James's," "The Masquerade, a Poem" (the author of which was certainly no poet), "The State Quack," "Gulliver Deciphered" (an indirect puff in favour of Arbuthnott,) "A Learned Dissertation on a Dumpling:"—all this very trash, very trash, we believe, after having waded through it with most unsatisfactory critical labour, to consist of works in which Arbuthnott had no part whatever.

Some other miscellaneous works attributed to our Author, though anonymously published, may, from their style and argument, be fairly considered as his. The "History of John Bull" is one of these, a very able satire, and amusingly readable even now, although the social changes that have intervened since its day have taken off its point. In like manner we may speak of the pamphlets, "It never rains but it

(b) An Essay concerning the Effects of Air on Human Bodies. By John Arbuthnott, M.D. London. 1732.

pours;" "The Political Art of Lying;" "The Supplement to Swift's Miscellanies," "A Letter to the Students of Both Universities;" "An Essay on an Apothecary" (a very bitter satire); "An Account of a Surprising Apparition on October 24, 1732;" "A Sermon preached at the Market-Cross, Edinburgh, on the Subject of the Union, in 1706," from the text, "Better is he that laboureth and aboundeth in all things than he that boasteth himself, and wanteth bread,"—a shrewd and able discourse; "An Account of the State of Learning in the Empire of Lilliput, together with the History and Character of Bellum, the Emperor's Librarian," a very amusing tale in the Gulliver style; "Critical Remarks on Gulliver's Travels" (a facetious attempt to prove by classical authorities that the nation of the Houyhnhnms was well known to the ancients of Greece, Italy, and England; and a poem, or reputed translation, called "Know Thyself," serious in tone, but barren in poetry. "The Hazards of Game," a translation; and "The Freeholders' Political Catechism," a political satire, are attributed, the first safely, the second doubtfully, to Arbuthnott. The catechism, which seems to have appeared in 1733, was not fathered on him until after his death.

We cannot pass over in silence two other snatches which have been laid at the door of Arbuthnott, with insufficient evidence, it is true, yet not without plausibility. It will be remembered that, in his first days in London, he opened a discussion on Dr. Woodward's work on Geology. In 1728, Woodward died. Soon after this event there appeared "An Account of the Sickness and Death of Dr. W—dw—rd, and also what appeared on the Opening of his Body, by Dr. Technicum." We hope and believe the critics are wrong who say that Arbuthnott wrote this low and contemptible satire, the only passable point of which, even satirically, is, that Woodward administered, in the course of his life, 20,473 vomits, 756 hogsheads 4 gallons and a pint of sack whey, and above 50 tons of oil.

In like manner, we hope that the critics are again wrong in supposing that another tract ("The Memorandums of the Six Days preceding the Death of a Late Right Reverend," and dated March the 10th, 1714) came from the hand of our witty physician. Assuredly, there is no wit or worth in this scribble; and it is impossible to affix to it the name of its true author.

From Pope's own showing, in a letter to Warburton, dated November 27th, 1742, it is clear that many of the notes to the first editions of the "Dunciad" were done by Arbuthnott, who, indeed, furnished the susceptible poet with many witty points and satiricisms which were easily interwoven into his melodious verse.

Returning to the chronological order of our narrative, we enter the year 1734. Arbuthnott was failing fast. He had sped through sixty-seven summers, and his work was well nigh done. He lived chiefly at Hampstead at this time. Before the last scene his more vigorous friend, Pope, crowned him with a final garland. The immortal Prologue to the Satires was done in the form of an epistle to the "Friend to my Life." Dipped in gall was the pen of the poet; but in the midst of bitterness, and with his teeth keenly on edge against half mankind, he concentrated in the last lines the whole of his living and loving sympathies on his dear Æsculapian.

"Oh, friend, may each domestic bliss be thine,
Be no unpleasant melancholy mine.
Me let the tender office long engage,
To rock the cradle of reposing age;
With lenient arts extend a mother's breath,
Make languor smile, and smooth the bed of death.
Explore the thought, explain the asking eye,
And keep awhile one parent from the sky.
On cares like these, if length of days attend,
May Heaven, to bless those days, preserve my friend!
Preserve him social, cheerful, and serene,
And just as rich as when he served a queen!"

The poet's hope was unrealised. Arbuthnott this year wrote his often quoted farewell letter to Pope. There is something enchanting in this last contribution to letters which marks the man, and tells his life-story in a few lines. He has, he says, the satisfaction to find that he is as officiously served by his friends as he that has thousands to leave in legacies, besides the assurance of their sincerity. His bodily distress is as easy as a thing of that kind can be. He has found relief sometimes from the air of Hampstead. His nights are bad, but many have worse. Then he refers to his love for Pope, whose talents were not the foundation of his friendship. He urges the poet to continue that noble disdain and abhorrence of vice which he seems naturally endued with, and to study more to reform than to chastise. Lord Bathurst he compliments, the venison present will be acceptable to friends, but the writer's venison stomach is gone. His recovery he feels hopeless; the kindest wish of his friends for him must be "Euthanasia," a happy death. Living or dying, he is the poet's friend.

Such is an outline of this famous letter; it was written from Hampstead, on July 17th, 1734, and was replied to by Pope in happy strain: "You are fitter to live or to die than any man I know." Enviable Arbuthnott!

Before the year closed, a severe shock was given to Arbuthnott by the death of his son Charles. Writing to Swift,(c) he foresees very plainly that his own end is near, and at the same time shows that, whatever his practice had been, he had laid by but little fortune. "I am not in circumstances," he relates, "to live an idle country life. I am in the case of a man that was almost in harbour and then blown back to sea, who has a reasonable hope of going to a good place, and an absolute certainty of leaving a very bad one. Not that I have any particular disgust of the world; for I have as great comfort in my own family, and from the kindness of my friends, as any man; but the world, in the main, displeaseth me, and I have too true a presentiment of calamities that are like to befall my country." It is to him, at the same time, "a most sensible affliction to bring his children to bear the loss of a father who loves them and whom they love."

In the close of the year Arbuthnott returned to London, not to Dover-street, for he had left there, but to Cork-street, Burlington-gardens. Here he lived on until the 27th of February, 1735, when he met the Euthanasia, and slept the sleep. Swift might never have seen his friend again, though he had lived; yet it were a satisfaction even to know that he were alive.(d)

When Mrs. Arbuthnott died we are not able to say; but at the time of Arbuthnott's death there were left two children, one son George, and one daughter Anne. George became first Secretary in the Remembrancer's Office, in the Exchequer, under Lord Masham. He prospered in the world, and was made one of the executors of Pope, with a legacy from the poet of £200. He died, aged 76, in 1779. Anne Arbuthnott, who possessed much of her father's taste and wit, was also remembered by Pope in a legacy of £200.

The political opinions of Arbuthnott are sufficiently well known. He clung to the Stuart family, and the Tory party; but was too candid not to admit such virtues as did exist in the first representative of the House of Brunswick.

Of his professional bias we know little, except that he had no great reverence for either the surgeons or the apothecaries of his day; and placed more faith in general treatment, than in the special application of particular remedies. He sometimes prescribed for Swift by letter. Cinnabar of antimony and castor form parts of one of these prescriptions (Dec. 11, 1718); but he has not much faith in the "cinnabar." Another time he advises "Geronster waters" "which will not carry from the spot" for vertigo (Nov. 17, 1723). In a third note Peruvian bark and iron rust are the chief remedies (November, 1730).

Reduced to miniature, the historical figure of Arbuthnott is that of a man who, while he made himself, sacrificed no one; who was broad and far-seeing in philosophy; who practised his profession as a science and ignored it as a trade; who living in the company of men to whom English literature and poetry is ever indebted, infused into the minds of these, much of that brilliancy, point, and wit, for which their books are so remarkable; who in prose writing excelled pre-eminently, and who had sense enough to give up the poet's vocation when he found such vocation

(c) Dated Hampstead, October 4, 1734.

(d) In speaking, last week, of Swift's admiration for Arbuthnot, a quotation from the Dean was given, to the effect that Arbuthnott "knows his art not his trade." For the lameness of this quotation, one of our best, we had better say our best, British Medical historian, has given the poor man who writes this life a merited thrust under the fifth rib, and sends with the thrust the quotation in full, in all its poetical purity. In shame and pain at this rebuke, the present biographer does all he can honourably to supply the deficiency. He kneels to the just critic, apologises to readers in general, and gives the verse.

"Removed from kind Arbuthnott's aid,
Who knows his art *but* not his trade
Preferring his regard to me
Before his crotchet or his fee"

not to be his own; who was esteemed by his comrades as "having more wit than all of them, and more humanity than wit;" who abhorred vice, and for her own sake loved virtue. On these claims, considered in their combined rather than in their individual importance, the fame of Arbuthnott rests; on them we base the right to number him amongst the great men of the Æsculapian line.

REVIEWS.

Transactions of the Pathological Society of London. Vol. VII. Pp. 420. 1856.

Year after year we have had the pleasing duty of recording, with hearty approbation, the appearance of a volume of the "Transactions of the Pathological Society of London." The seventh volume, now before us, fully sustains the character earned by its predecessors. Most of our readers are, no doubt, well acquainted with the nature of the usual proceedings of the Pathological Society; but those who are not, may be informed that they consist of the exhibition of morbid specimens in a recent state, of short accompanying descriptions drawn up and read by the exhibitors, and, if occasion should arise, of reports made upon the microscopic or other characters of the specimens. Discussions upon theoretical matters or points of practice are foreign to the purposes of the Society, which deals only with the visible and the tangible properties of the objects placed before it. The descriptions given at the meetings, and the reports upon the specimens, together with engraved or coloured representations of their more striking features, are collected into an annual volume of Transactions, of which series the present book forms a part.

Where specimens are collected together as occasion serves, it would be vain to attempt any regular or definite system of classification; and we cannot, therefore, give any further analysis of the work than to follow the plan laid down by the compiler, and to state that the different objects are arranged according to their general anatomical relations. The Diseases of the Nervous System are placed first in the list, and include the description of some very interesting tumours of the brain and spinal cord, together with inflammation, softening, and abscess of the same structures: this department is this year very rich and much varied. The Diseases of the Organs of Respiration and Circulation are illustrated by descriptions of malignant formations in the chest, malformations of the cardiac valves, aneurisms, fibrinous deposits in the heart and in the vessels. Among the morbid conditions of blood-vessels is detailed and figured a most interesting case, communicated by Dr. Swayne, of York, of dissecting aneurism of the aorta, reaching from its arch to the division of the iliacs. In this case, the patient had suffered from disease of the aortic and mitral valves, with hypertrophy of the heart, when, after some exertion, he felt something crack in his chest, and he became faint and very ill. From a subsequent physical examination of the aorta, Dr. Swayne formed the diagnosis, which turned out to be correct, of a transverse rupture of the middle and internal coats of the aorta, followed by dissecting aneurism. On a post-mortem examination, it was found, in fact, that the division of the arterial coats had taken place, and that the current of the blood, diverted partially from its usual channel, had passed between the external coat of the aorta and its internal and middle coats, completely separating the former from the two latter, and towards the bifurcation into the iliacs, forming a solid mass, obstructing the circulation in the lower extremities. There are four cases of intra-cranial aneurism; one affecting the basilar artery, one the posterior cerebral artery, and two the middle cerebral artery. The Diseases of the Digestive System comprise a great variety of lesions, among which are malignant disease of the œsophagus; strictures, obstructions, and intussusceptions of the intestines; hernia, femoral, omental, and umbilical; hydatids of the liver; hypertrophy of the spleen, with leuchæmia; and many others. The Diseases of the Urinary and Genital Organs are equally varied, including calculi of different kinds, ovarian tumours, atrophy of the kidneys, and malignant disease of this organ. In one case the kidney was increased to an enormous size and weight by cancerous growth, so as to fill the whole abdomen in a young child. In the department devoted to the Osseous System, we find specimens of fractures, necrosis, anchylosis, tubercle in bone, osteo-sarcoma, etc.

The Diseases of the Organs of Special Sense are very few in number, but they comprise an interesting case of malignant disease growing from the orbit, and a case of atrophy of the optic nerves and tracts on both sides, are eighteen, in which there had been total blindness for many years. Their Illustrations, which are remarkable for their beauty and accuracy, and there is also a variety of smaller wood engravings incorporated with the text. Among the more important engravings, some of which are coloured, we may notice Mr. Henry Thompson's case of fibrous tumour in the prostate gland, and sacculated bladder; the section of Mr. Athol Johnson's case of Infantile Cystic Disease of the Testis; Dr. Swayne's case of Dissecting Aneurism of the Aorta, before alluded to, and Dr. Peacock's case of Union of the Aortic Valves. We understand that in several instances the members of the Society have voluntarily contributed to bear the expenses of some of the more costly illustrations. The subject of Tumours, malignant and non-malignant, is copiously illustrated, and every form of these Protean affections appears to have received attention from the Society. It may indeed be questioned whether the Reports on the Microscopical characters of some of these growths are not carried to a somewhat unnecessary degree of minuteness, and whether some plain and simple characters might not be devised for their distinction and classification. It is very probable that the laborious researches of the Society upon the subject of Tumours may eventually lead to some definite views upon this very obscure and intricate department of Pathology.

Although it is not mentioned in the title pages or in any other part of the volume, it is generally known that the Society is indebted to Dr. Richard Quain, its Secretary, for this compilation; and those who observe the style in which the matter is arranged, and who, at the same time, are acquainted with the arduous nature of editorial labours, will fully appreciate the amount of gratitude which is due to Dr. Quain for his gratuitous and self-imposed duties. He has edited the last five volumes of the Society's Transactions, and it will be learned with regret that he now takes leave of the task, and resigns the office of Secretary. Any future Secretary who brings out an annual volume of Transactions so creditable in every respect as those which for several years we have been in the habit of noticing will deserve and no doubt receive the thanks of the Society and of the whole Profession.

Neue Orthopädische Behandlungsercise veralteter Spontaner Luxationen in Hüftgelenke. (*A New Orthopædic Plan of Treatment of Chronic Spontaneous Luxations of the Hip-joint.*) By Dr. Johannes Wildberger. Pp. 112. Leipsig: 1856.

The author of this plan, having superintended an institution for the treatment of lateral curvature of the spine, was induced to turn his attention to the cure of dislocations of the hip, by a successful case which occurred to him almost accidentally in the course of his ordinary practice. A boy was brought to Dr. Wildberger's Institution suffering from a dislocation of the hip, which appeared to result from an inflammation of the joint. The affected leg was found by measurement to be shorter than the other; and it occurred to Dr. Wildberger to restore the diseased leg to its original length by means of traction, which was effected by a machine, at first rude in its construction. The result of this treatment was so successful, that the author directed special attention to the improvement of the apparatus, by which the displaced bone may be returned to its original position in the cotyloid cavity; and the objects of the work before us are—to describe the anatomical characters of the chronic spontaneous luxations of the hip, the nature of the machine invented for the rectification of this dislocation, and the precautions necessary to be taken in order to secure a favourable result.

The apparatus is of a very complicated character, but its object is, to place the patient in a recumbent position, to fix the pelvis, and to allow of the traction and rotation of the thigh-bone. These operations are performed partly by the personal manipulations of the Surgeon, and partly by the action of screws and straps, which are loosened or made tight as circumstances require. It is admitted that the treatment is often tedious, and requires great care and circumspection, qualities which are the more necessary as the subjects of this disease are sometimes persons of a scrofulous and unhealthy constitution, and in whom the mechanical force necessarily employed often gives rise to great suffering, as well as to ex-

coriations and sloughing of the surface of the body. Another circumstance alluded to by the author, which must complicate the treatment and retard the cure, is that when, by mechanical means the head of the bone is brought over the acetabulum, it does not, and, indeed, cannot, slip into that cavity with a jerk, as it does in accidental dislocations, but is excluded by the new formations, which, in the course of the disease, have occupied the space originally filled by the head of the bone. Dr. Wildberger thinks, however, that these new formations, being soft and yielding in their character, will recede sufficiently to allow the bone to resume its proper position, if sufficient patience and care are exercised in the treatment. Three engravings of the apparatus employed are given at the end of the work, and a copious description of its construction and uses is to be found in the text; and there can be no doubt that the author displays great ingenuity, as well as anatomical knowledge in the invention, which he now offers to the judgment of Surgeons. In giving this meed of praise to Dr. Wildberger, we cannot but express our fears that the persons who are likely to become affected with chronic displacement of the hip-joint are hardly suitable cases for a long-continued and painful mechanical treatment, although it may be applicable in certain instances of displacement, arising from acute inflammation of the articulation. The cases adduced by Dr. Wildberger are of the latter character, and their treatment appears to have been attended with success.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

EXPERIMENTAL RESEARCHES ON ANIMAL TEMPERATURE.

By M. CLAUDE BERNARD.

M. Claude Bernard has addressed two interesting Memoirs to the Académie des Sciences upon this subject, and the following are the conclusions he has arrived at:—1. The digestive apparatus imparts constant heat to the blood, in such a manner that the venous blood is warmer in this apparatus than the arterial. 2. The blood which leaves the digestive apparatus by the hepatic veins is a constant source of the calorification of the blood that proceeds to the heart by the vena cava inferior. We may even add, that it is the principal source; for nowhere in the circulatory system is the blood so warm as in the hepatic veins; and our tables show, that in the most vigorous animals this temperature may attain to 41·6° centigrade. 3. Among the organs which contribute to the calorification of the blood in the digestive apparatus, the liver occupies the first rank: whence it results that this organ must be regarded as one of the principal sources of animal heat. 4. The circulation of the blood through the lungs is a cause of the cooling of this fluid. 5. We must not thenceforward regard the lungs as a source of animal heat. 6. The transformation of venous into arterial blood, in the living animal, is not coincident with an increase of heat in this fluid, but with a diminution of temperature.

Comptes Rendus, T. XLIII. Nos. VII. and XI.

IODINE IN VOMITING IN PREGNANCY.

By Dr. EULENBERG.

Dr. J. B. Schmitt some time since recommended the tincture of iodine in the vomiting of pregnant women, when this may be regarded as a neurosis. He gives one case in particular, in which a woman, who had, in consequence of vomiting, had four abortions, and became pregnant with her fifth child. Two drops of the tincture given every two hours completely kept the vomiting under, as long as it was continued, the vomiting only returning when it was suspended. At last, a dose two or three times daily sufficed. Dr. Eulenberg has also met with a remarkable case in a healthy woman, 35 years of age, who had suffered from sickness in every pregnancy, and on this occasion had become much reduced. As she was very susceptible to the action of medicines, he ordered her—tinct. iod. ℥j., sp. vini r. ʒiij., 3 drops to be taken in water every three hours. By the second day all the most distressing vomiting had disappeared, and she was again able to keep water on her stomach, and in a short time she quite recovered. The *modus operandi* of such small doses of the tincture is not very easily explained; but it is to be observed, that the iodide of potassium exerts scarcely any influence. It is highly probable that it only influences the vomiting, inasmuch as this is a neurosis, an abnormal condition of the nerves of the stomach. In proof of this, it is also administered with the greatest advantage to hysterical women suffering from abnormal sensations at the epigastrium as an insupportable feeling of emptiness, or a constant feeling of hunger without appetite. The iodine also acts beneficially in the sympathetic nervous irradiations, even when not connected with pregnancy, but which may depend on suckling, etc. The cardialgia and nausea of pregnancy are speedily relieved by it, as well as the vomiting.—*Berlin Medicin Zeitung*. No. XXV.

EXCERPTA MINORA.

Ligature of the Innominata.—Dr. Eve has collected the statistics of the 16 cases in which obliteration of this vessel has been attempted. In fact the ligature was tied around the innominata in only 10; viz, Mott's, Graefe's, Norman's, Arendt's, Bland's, Bujalski's (two), Lizars', Dupuytren's, and Hutin's. In Hall's it was passed through the artery; in Kuhl's and Liston's the carotid and subclavian were tied just beyond the bifurcation; and in Porter's, Key's, and Hoffmann's, the operation was abandoned. In the 13 cases, in which it was applied to the innominata or near its division, death followed; of the 16 cases only 1 recovered, and in that no ligature was used, the vessel having been simply exposed. —*New York Journal*, September.

The Urine in Pregnancy.—Dr. Elliot, as the result of an elaborate examination of the urine in about 150 pregnant women, states that there is nothing conclusive in the peculiarities observed. "There is nothing positive in its indications, and they can scarcely even be termed 'corroborative.'" Of about 112 specimens also, carefully tested for *albumen*, only 2 presented it, both women having natural labours.—*Ibid.*

Sesquichloride of Iron as a Hæmostatic..—M. Vicente recommends the following as good formulæ:—Iron 3 to 5 parts, water 100, for external use. For internal use, iron 4 grains, water ʒviij. A spoonful every hour or oftener, according to the exigency of the case. It may be also used advantageously as an enema in choleriform diarrhœa and intestinal hæmorrhage.—*Revue Médicale*, August.

Copper in Oysters.—Professor Bizio of Venice, opposing the idea of copper found in oysters being attributable to the animals having been attached to copper-bottomed vessels, observed, that he had already announced, in 1853, that copper may be found in considerable quantity in the gills of the oyster, and in small quantities in the mantle, and that when they had even been fished from a calcareous rock. The green colour sometimes observed in oysters, he believes to be due to the copper they contain, under the influence of a pathological process.—*Journal de Chimie Médicale*, October.

Salt Milk.—M. Trèves relates the case of a lady who had been hitherto unable to suckle her children, but determined to try anew with her next. As there was no perceptible obstacle the child was put to the breast, but always showed the greatest repugnance to sucking. Persevering in the attempts for a few weeks, the child was found to waste away. On examination, the milk offered no peculiar appearance, but, on tasting it, it was found intensely salt, like brine. A nurse was procured, and the child soon rallied.—*Union Médicale.*

Hæmorrhage from the Finger.—M. Homolle relates the case of a girl who had wounded the pulp of the medius finger with a broken window. The wound had united badly, and on the eighth day hæmorrhage occurred from the centre of the pulpous portion of the finger, and led to syncope. Pressure arrested it, and the finger was strapped up; but in eight hours the hæmorrhage and syncope were renewed. The plaster was removed, and perchloride of iron employed, which proved effectual.—*Union Médicale*, No. 127.

Fatal Tapping of an Ovarian Tumour.—In a case which occurred to Dr. Peaslee, fatal hæmorrhage occurred a few hours after about fifteen pounds of fluid had been abstracted. It was found to have proceeded from the puncture of a highly vascular omentum. Dr. Peaslee believes the source of hæmorrhage in this case to have been peculiar, as he has never heard of the great omentum having been injured by a puncture made half-way between the umbilicus and pubis; and in all ordinary circumstances where the abdomen is much distended, it is impossible that the omentum should extend thus far. It is usually pushed up by the tumour during its deve-

lopment to above the umbilicus. In this case it was 2½ feet long, and completely covered the femur, anteriorly and laterally.—*Ibid., p.* 576.

Chloroform in Toothache.—M. Simon recommends, as a most effectual palliative of the pain of toothache, whether dependent upon caries or not, the application of cotton, on which a few drops of chloroform have been dropped, to the commencement of the meatus auditorius, where it only causes a slight burning sensation, and gives great relief. The chloroform must not be dropped directly into the ear.—*Revue Médicale*, October, 1856.

Chlorate of Potass in Mercurial Salivation.—Several trials made by M. Ricord exhibit the power of this substance not only in checking mercurial salivation, after the suspension of the mercury, but even when this is continued and increased. Of still greater importance is its prophylactic agency; for in a considerable number of patients, some of whom were extremely susceptible to mercurialization, who took the chlorate from the commencement of the course, no salivation at all occurred.—*Bull. de Thérap.*, Tome LI., p. 183.

GENERAL CORRESPONDENCE.

USE OF CHLOROFORM IN LARGE QUANTITY.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following instance of an unusual quantity of chloroform being taken, with but little ill effect, is, I think, worth insertion in your journal:—

I was lately requested to see a lady, partly, I believe, at the suggestion of a respectable druggist, who was alarmed at the unusual quantity of chloroform purchased by her for the purpose of inhalation. I found on my visit that she complained of what she called "tic" in the face and "all over her," and had been formerly recommended by some distant practitioner to use chloroform. She was of a delicate conformation, and of a very susceptible and nervous temperament, and this was probably no small part of her disease. She was in the habit of sending for the chloroform in quantities of two ounces each time, and it was of the best quality, of Duncan and Flockhart's manufacture. It appears from the day-book of the druggist that on the 1st of August (on the 9th of which month my first visit was paid) she purchased two ounces of chloroform, and on the 2nd four ounces, on the 3rd two ounces, on the 4th two ounces, on the 5th six ounces, on the 6th four ounces, on the 7th eight ounces, on the 8th ten ounces, on the 9th ten ounces, on the 10th ten ounces, on the 12th four ounces, or sixty-two ounces in twelve days. On one occasion she breathed the vapour of more than an ounce and a-half in my presence from her handkerchief, placing it on her pillow, and burying her face over it; a method which would prevent much waste. She said that it produced no pleasant effects except freedom from pain, and was able to appear below stairs rather late in the day, but she expressed some apprehension of its affecting her reason. She appears to have used chloroform at intervals for some time. As we (patient and doctor) differed in our views of the case, we parted in a few days, but she is now, I believe, quite as well as usual, in fact in tolerable good health.

In the above case the chloroform was, I believe, of the first quality, but going lately with a brother Practitioner of a neighbouring town into a druggist's shop to purchase chloroform, we noticed it to fume, and its taste to be strongly acid. The druggist kept no assistant, and believed that he had made no mistake. We leave it to the chemist to say whether he or the manufacturer was at fault. I am, &c.

Stoke-upon-Trent, November 10. R. Garner.

SACCHARINE URINE IN NURSING WOMEN.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following, which is the substance of a paper laid before the Académie des Sciences, will probably be read with interest by your readers.

The presence of sugar in urine which has heretofore been regarded as a pathognomonic sign of the disease Diabetes, would appear from the researches of M. Blot, to be deprived, to a certain extent, of its value in the diagnosis of this disease. This gentleman, in a paper which he has recently laid before the Academy, states that sugar is *always normally* present in the urine of women in child-bed, in that of nurses, and occasionally in that of pregnant women. M. Blot, after having satisfied himself by a chemical examination of the presence of sugar in the urine, proceeds to state the following facts, as the result of his investigations upon this interesting subject.

In all women in child-bed M. Blot found that it was at the moment of the lacteal secretion that the sugar first makes its appearance in the urine, in sufficient quantity to be well determined; however in some cases it may appear before this period, in which case it is however generally present in small quantity. The amount of sugar present in the urine is exactly in proportion to the activity or slowness of the lacteal secretion, for when this is abundant the quantity of sugar found in the urine is great, but if on the contrary the secretion is not so, then there will be less sugar detected in the urine; from this we might, as M. Blot remarks, judge of the value of a nurse by an examination of the urine.

If it should happen that the lacteal secretion is diminished or retarded by disease of any kind, the sugar diminishes, or completely disappears from the urine; but as health is restored, and with it the lacteal secretion, it again makes its appearance.

The quantity stated by M. Blot as being present was 8 grammes in 1000 grammes, in the case of a nurse who had suckled for 22 months. Of the women whose urine was examined, whether in child-bed, nurses, or pregnant, none presented any symptom whatever of Diabetes; on the contrary, their urine was found to be richer in sugar in proportion as their health was good.

When the secretion of milk ceases, the sugar disappears, but in a variable time in different cases; thus it does so quicker in those women who do not suckle, and slower in those, who, having suckled, commence to wean. In these latter the sugar is alternately present, for it was found one day, absent the next, but it again made its appearance upon the third. The proportion of sugar is generally much less than what is found in Diabetes; from 1 to 2 grammes up to 12 grammes on 1000 grammes, is about the proportion stated by M. Blot as being correct; it may, however, be right to state that this proportion of sugar was found in urine of the morning. In pregnant women sugar was found present in the urine in about half of those examined.

This saccharine state of the urine of women, which appears from the researches of M. Blot to be constantly under certain circumstances normally present, will probably also be found to be the case with the females of different species of mammiferous animals, as M. Blot has already detected sugar in the urine of the cow in 9 cases which he examined.

The author of this paper has promised to prosecute his researches upon the females of mammiferous animals, for the purpose of ascertaining whether the same takes place with them as has been shown to occur in women. M. Blot will lay before the Academy a paper in which he will state the result of his investigations, which will, without doubt, be of great interest to the physiologist. In the hope this may be of interest to your readers. I am, &c.

Paris, October 24th, 1856. A. Archbald.

THE CORPORATION MEDICAL REFORM BILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—The attention of the Council of the Apothecaries Hall of Dublin having been called to an article entitled "The Medical Reform Bill of the Corporations," which appeared in a late number of the *Medical Times and Gazette*, the Council deem it right to state, that they are not parties to the proposed measure, and that it will be their duty to give to it all the opposition in their power.

With the request that you will give this communication a place in the forthcoming number of your Journal,

I am, &c. C. H. Leet, Secretary.

Apothecaries' Hall, Dublin, Nov. 18, 1856.

Infantile Mortality at Birmingham.—Mr. Feirne, the house-surgeon to the workhouse, has shown that during the past year the mortality of infants in the workhouse has been much less than in the town generally. This is very creditable to him and the authorities.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, NOVEMBER 18.

Mr. ARNOTT, President, in the chair.

AFTER some preliminary business, and the proposal of several new members, the meeting proceeded as usual.

Dr. OGLE read, on behalf or Mr. Gray and himself, a report on Mr. Hutchinson's specimen of

FIBRO-PLASTIC AND MYELOID TUMOUR IN THE HEAD OF THE HUMERUS.

The conclusion to which they had arrived was exactly similar to that of the exhibitor. The growth consisted of fibroid and fibrous tissue, with small cells sparingly interspersed, and yet more sparingly the large, many-nucleated, myeloid bodies. The latter were seen only near the medulla of the bone. The enlarged glands consisted nearly of the same elements, but had no myeloid bodies. Neither in the glands nor the primary growth were any appearances at all resembling those of cancer.

Mr. HUTCHINSON would remind the Society that in this case a return of the disease had taken place within two months of the excision of the tumour just reported on, and that the patient had died with large cancerous growths in four different parts within five months of the operation. The case seemed a conclusive example of the recurrence of a most malignant form of cancer, after the removal of a tumour which did not possess that character. The circumstance that the glands were affected before the operation was, however, a feature of interest, and one which, at the time, had led him to fear that, although not histologically malignant, the disease would, in its course, prove to be so.

Dr. MURCHISON exhibited a specimen in which, from cancerous ulceration, the

GALL-BLADDER, LIVER, AND COLON COMMUNICATED WITH EACH OTHER.

On the abdomen being opened, the transverse colon was found firmly adherent to the anterior margin of the liver, at a point corresponding to the fundus of the gall-bladder. On the surface, and throughout the substance of the liver, were numerous cancerous deposits. The cystic duct and artery were found imbedded in, and obliterated by, a mass of cancerous deposit, which also compressed, but did not obliterate, the common hepatic duct. No trace of the coats of the gall-bladder could be made out, but in its place there was a cavity hollowed out in the substance of the liver, with irregular sloughy walls, and which communicated by an opening as large as a halfpenny, with the interior of the adherent transverse colon. This cavity was filled with a dark brown pultaceous fluid, containing a piece of potato skin, and other *débris* of the food. The margin of the opening in the transverse colon was indurated from cancerous deposit, as was also the whole circumference of the corresponding portion of gut, producing a stricture, to the right of which there was great dilatation. The preparation had been obtained from the body of a man aged 56. The symptoms during life had been briefly as follow:—Three months before death he first began to suffer from pains in the right hypochondrium. Two months after this, he was seized with great aggravation of the pain, vomiting, and purging. Ten days before death he became jaundiced; and about this time the hepatic dulness was found to be increased, and an immovable tumour could be felt in the region of the gall-bladder. From the appearance of the jaundice, he gradually sank until death. For three days before death the stools had been of natural colour and consistence.

Dr. MURCHISON also brought before the Society an example of

CANCER OF THE LIVER AND GALL-BLADDER,

in which the cystic duct had become obliterated by cancerous deposit. The gall-bladder was much distended with a milky, flaky fluid, and also contained two large gall-stones. There was no trace of any ulceration of its lining membrane, nor of any adhesion of its outer surface to the adjoining viscera. In the same patient there was cancer of the peritoneal surface of many of the abdominal viscera, and a cancerous stricture of the rectum.

The preparation had been obtained from the body of a female aged 53, in whom the symptoms had been pains in the abdomen, coming on about two months before death, and followed by obstinate constipation, vomiting, jaundice, and rapid sinking.

Dr. BALY showed the

SUPRA-RENAL CAPSULES FROM A CASE OF BRONZED SKIN.

A young man, by trade a shoemaker, had died under his care in St. Bartholomew's Hospital, having presented a well marked condition of bronzing for at least a year before death. He had repeatedly been under care before, and had been discharged for short periods. The more severe symptoms which had immediately preceded death had lasted for three weeks. Albumen was detected in his urine a few days before death, but there was no dropsy. The specimen consisted of the two organs, both of which were transformed into fibro-calcareous material, the calcification being more advanced in one than the other. No healthy structure existed in either. Dr. Baly remarked that this condition must have been present for a long time, and that the case then militated strongly against the accuracy of the opinions of some French experimenters, that life could not be carried on after destruction of the supra-renal bodies. He also adverted to a second case, which had occurred at St. Bartholomew's, and in which, although the supra-renal bodies were extensively diseased, no bronzing of the skin whatever had been present. It was true that considerable portions of the capsules retained their healthy structure.

Mr. HUTCHINSON asked if Dr. Baly had himself examined the skin in the latter case. He had been informed that the patient, although generally pallid, showed on the legs and thighs some brownish patches, which had been set down as pityriasis versicolor, but which, as the microscope had not been used, he would suggest might have been an early stage of bronzing.

Dr. BALY had not seen the patient himself. He thought there could not be much difficulty in distinguishing between the patches of pityriasis and the diffused bronzing of the disease under discussion.

Mr. BIRKETT brought forward specimens of

SEBACEOUS CYSTS IN DIFFERENT CONDITIONS.

Seven cysts had been removed from the same patient, some from the scalp and others from the shoulder and back. Many of them had existed for very long periods. They exemplified well the different stages of these cysts and of induration of their walls. One or two were thin-walled and contained the usual curdy material, one contained a thin yellow fluid, another a dry greasy substance, its walls being very thick, one was quite solid and hard and appeared on the point of ulcerating. In one which was situate on the shoulder, ulceration had occurred and the appearances presented exactly simulated those of an open fungating cancer. Since its ulceration two attempts had been made out of the Hospital to remove this one by ligature, but it had grown again. It had existed 20 years; by its side were the remains of a congenital mole. Under the microscope its tissue was made up almost exclusively of epidermic scales. One of the cysts contained fluid blood altered by long retention. In alluding to the very deceptive appearances which these cysts would often assume, Mr. Birkett mentioned the case of an elderly medical man from whose mammary region he had removed a tumour of most threatening aspect. It was the size of a small orange, livid and discoloured externally, and apparently on the point of ulcerating. After removal it proved to be a cyst containing altered blood.

NORTH LONDON MEDICAL SOCIETY.

NOVEMBER 12.

Mr. PART, President, in the chair.

DR. HARE communicated a

CASE OF MANIA.

The patient was a married lady, whom he had seen in consultation with another Medical man. The disease appeared to have come on suddenly. Among the sym-

ptoms were, that she imagined herself to be in a state of electricity, and that everything appeared to her to be perverted. She had not slept for some time. Dr. Hare prescribed repeated doses of morphia. Under this treatment a perfect recovery ensued.

Dr. Tunaley mentioned a case of mania that had been cured by large doses of belladonna.

Dr. Garrod believed that some cases of mania bore a resemblance to cases of delirium tremens; in such cases opium acted beneficially. Belladonna, henbane, and stramonium would produce a very similar state, which found its antidote in opium;—in a word, that opium and the above drugs were, in a measure, antagonistic to each other.

Mr. J. Zachariah Laurence read a paper on

LUPOID ULCER.

Mr. Laurence first narrated the details of four cases of the disease—a disease of the skin, which, he believed, had not hitherto been described by any author; and then proceeded to direct attention to the following specialities:—

1. *The character of the ulcer.*—The most marked feature is its peculiar *mammillated* or tuberculated surface. It does not extend to any depth; its secretion is thin; in some cases it is painless, in others attended with occasional shooting pains; it has sometimes a tendency to bleed. It is stamped by an excessive indolence. In the cases adduced the disease showed little tendency to spread; it was characterized, not by any rapid progress, but having once attained a certain degree of severity, by an obstinate resistance against any remedies employed for its melioration.

2. *The situation of the ulcer.*—The nose, upper lip, palate, and cheek were the localities observed.

3. *The subjects of the disease.*—Mr. Laurence had only observed it in young women in whom the menstrual function was at fault. "Lupoid ulcer" is most nearly related to Lupus exedens, but differs from that disease by the ulcer not being preceded by the formation of any tubercles, by the peculiar and characteristic appearance of the ulcer, by the smooth (not barred) consequent cicatrix, by its greater indolence, and by the special circumstances under which it occurs.

Two authors have cursorily noticed this disease. Rayer has, at plate xii. fig. 2 of his Atlas, figured it with the description, "Lupus exedens: ulcers of the alæ and extremity of the nose, covered with fungous mammillæ, situate under the crusts." The peculiarity of the disease evidently struck Rayer, or he would not have otherwise specially figured and specially described it. Dr. Robert Willis states, under the head of Lupus exedens, that "when the disease shows itself in the nose, it is not always possible to say positively that the first step in the development is the formation of any kind of tubercle."

Mr. Norman said, he had seen several cases of the disease Mr. Laurence had described, one on the buttock; Mr. Norman considered the peculiar mammillated appearance due to the disease having commenced in the sebaceous follicles.

Dr. Garrod said that he had also seen such cases under the care of the late Dr. Anthony Todd Thompson.

Dr. Tunaley mentioned a case of the kind, in which there was a vicarious catamenial discharge from the surface of the ulcer.

Dr. Hare believed the disease in question to be a variety of Lupus exedens.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

October 17, 1866.

S. A. Lane, Esq., President, in the Chair.

The first ordinary meeting was held this evening.

After a short opening address from the President, and the nomination of new members,

Dr. Seaton, Vice-President, read a paper on

THE PROTECTIVE AND MODIFYING POWERS OF VACCINATION.

He commenced by correcting erroneous notions which some entertained as to the views held by Jenner on the protective powers of vaccination; and showed, that when he spoke of this as an absolute and perfect protection, he meant that it protected to the same extent and in the same manner that small-pox itself did. He regretted that the rules and cautions laid down by Jenner for the performance of vaccination should so often be departed from, and that the operation, from its simplicity, should not always have received either from Medical men or from parents the attention due to it. Hence it was necessary in every case of small-pox, in which previous vaccination was alleged, to ascertain accurately whether the person had really gone through the vaccine disease or not. In determining the relative protection against small-pox afforded by a previous attack of the disease casually or by inoculation on the one hand, and by vaccination on the other, there was also the necessity in the former case of determining whether the primary disease had really been small-pox, or whether the inoculation had been successful; and there was also the necessity in both cases of being assured with regard to the present attack, that it was a genuine one, and not one of the many diseases which had at different times been mistaken for small-pox. Again, the comparison must be made in classes of individuals similarly circumstanced as to age, condition of life, liability to exposure, etc. These conditions were all fulfilled in the Royal Military asylum, in which it had been shown by Dr. Balfour, that out of every thousand boys admitted protected by previous small-pox, 6·15, and out of every thousand protected by vaccination, 7·06 were attached subsequently by small-pox. This result might be looked upon as conclusive respecting children under puberty, and shows that as regards them, Dr. Jenner's opinion of the equal protective value of small-pox and of vaccination was borne out. Dr. Seaton said these statistics were further of great value as showing that small-pox after small-pox was by no means the rare occurrence it was sometimes represented to be, a point which must always be borne in mind in estimating the value of vaccination. There were no statistics by which the relative protection afforded by vaccination and by small-pox could be estimated with the same precision for the adult. The statistics of the Army and Navy were not available for this purpose, though they afforded more conclusive proofs of the value of vaccination. These forces being at times much exposed, and four-fifths of them owing their protection to vaccination. Dr. Seaton then entered into the question of the protection afforded by vaccination under circumstances of long continued exposure during epidemic influence. Having mentioned some striking facts on this subject, he gave the results of an inquiry instituted some few years ago by the Epidemiological Society as to the extent to which Medical men, whose profession exposed them to small-pox contagion in a peculiar degree, were liable to take the disease. It appeared from the returns that of 347 Medical men protected by vaccination 44 or 12·6 per cent. had had variola, and of 82 who had been inoculated in infancy 3 or 3·6 per cent. had variola subsequently. Dr. Seaton cautioned the Society against receiving these statements as representing correctly the ratio in which Medical men in the ordinary practice of their profession were liable to variola. In the first place, the inquiries had been addressed to a great many more who had not replied; "now as variola after inoculation, or after vaccination, was undoubtedly the exceptional case, the probability is, that in every case in which it occurred it was reported, and that those who did not reply had not suffered. Again, the inquiries were addressed to *selected* persons, the selection being in many instances made because of the known extent to which they were in the habit of meeting with small-pox; and further, a great many of the cases of small-pox thus reported were cases of variolous inoculation in the dissecting-room. Making allowance for these points, the returns would at first sight show that, under circumstances of considerable exposure, the protecting power of vaccine was inferior to that of variola. But an analysis of the returns, with the view of determining the *character* of the vaccination relied on, gave some interesting results. Of 18 who stated there was no cicatrix visible, 3 or 16·6 per cent., had had small-pox, and of 32 who make no mention about the cicatrix, 6 had had small-pox, being about the same proportion. Of 235 with one or two cicatrices, 33, or 14 per cent., had had small-pox; but of 62 with 3 or 4 cicatrices, 2 only, or 3·2 per cent., had had small-pox. Taking these facts in connexion with the immense value of the cicatrices as an index of the efficiency of vaccination, shown by the researches of Mr. Marson, the results are sufficiently remarkable. It does not appear that the liability to take small-pox is any

greater, in those having more than two cicatrices of vaccination, than in those who have had previous small-pox, so far as these observations go. Granting at once that the number of observations are far too limited to allow us to draw with confidence any positive conclusions, they certainly justify a negative one, and call upon us to pause before we admit that, duly and efficiently performed, vaccination will not protect the system, even under circumstances of severe exposure, to the same extent that inoculation itself would have done, as stated by Jenner. It was clear at all events that there was no truth in those statements, which treat of small-pox after inoculation as a bare possibility scarcely to be taken into account, and of small-pox after vaccination as a thing almost to be expected, especially after a lapse of years. In reference to the doctrine involved in this latter phrase, viz., that the protecting influence of vaccination is liable to wear out, Dr. Seaton cited various facts to show that it ought not to be accepted. The author then proceeded to consider the modifying power of vaccination, and exhibited in a table the results of various returns to the Epidemiological Society, of the observations made in various epidemics, and of the records kept by Mr. Marson, at the Small-Pox Hospital. He showed that the mortality from small-pox in persons reported to be vaccinated, was not more than 3 or 4 per cent. under favourable circumstances, nor more than 7 under the most unfavourable; while the mortality of natural small-pox varied from 20 to 35 per cent. He gave accounts of the analysis of the cases of post-vaccine small-pox in the Small-Pox Hospital, and published in the paper by Mr. Marson in the "Medico-Chirurgical Transactions." This, Dr. Seaton characterised as the most important contribution ever made to our knowledge in this branch of the subject. By these it appeared, that in persons well vaccinated, and having more than two cicatrices, the mortality was less than 1½ per cent. It was only, the author observed, by taking in connection the protecting and modifying powers of vaccination, that we could arrive at any just estimate of the real value of the discovery; and he showed, from the preceding facts, that, of a certain number of children vaccinated in infancy, the proportion which would at any period of life take fatal small-pox, was infinitely smaller than the number who, out of a given number of children inoculated, would die from the immediate effects of the operation itself. Hence the practice of vaccination was infinitely safer than inoculation, as regarded the individual. The great objection, however, to inoculation was, that it kept alive and propagated the disease. This was the case at the present day in India, Ireland, and other places where it was still practised, and had been the same in England. Hence, during the last century, while inoculation was in vogue, the mortality from small-pox underwent no diminution. While, since the introduction of vaccination it had steadily and progressively declined. In the ten years ending 1800 the average annual mortality from small-pox within the bills of mortality was 1780 in a population ascertained in 1801 to be 261,233; while for the four years ending 1841 it was only 1659 in a population ascertained to be nearly 2,000,000. Then came the Act establishing Parochial Vaccination, and for the 14 years ending 1855, the average annual mortality from small-pox was but 821 in a population considerably above 2¼ millions. The author then showed that by far the greater part of this mortality was unnecessary and avoidable, and comparing the mortality in this country with that existing in other countries, he pronounced the state of England in this respect as discreditable, and expressed his hope that the Profession would lend its voice and efforts in obtaining a more perfect system of vaccination and a better application of its benefits than at present obtains.

The Society then adjourned.

University of London v. Yarrow.—The question in this case came before the Master of the Rolls as to the validity of a bequest to the London University, by the will of Thomas Brown, of Rosey-park Hill of the Grange, in the county of Dublin, "for establishing an institution for investigating, studying, and without charge beyond immediate expenses, endeavouring to cure maladies, distempers, and injuries which any quadrupeds or birds useful to man may be found subject to." The question was, was this a valid bequest? It was contended, for the next of kin, that the bequest was void for uncertainty. The Master of the Rolls said it was a perfectly good bequest.

UNIVERSITY OF LONDON.

M.B. SECOND EXAMINATION.—1856.

The following is a list of Candidates who passed the Second Examination for the Degree of M.B., lately held:—

First Division.

Andrew, Edwyn	University College.
Blake, James Gibbs, B.A.	University College.
Brown, Thomas Edwin Burton	Guy's Hospital.
Clapton, Edward	St. Thomas's Hospital
Dowling, Francis Joseph	King's College.
Jones, Sydney	St. Thomas's Hospital
Maudsley, Henry	University College.
Thorowgood, John Charles	University College.

Second Division.

Rice, James	King's College.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the meeting of the Court of Examiners on the 7th instant:—

Blackman, Frederick, Canterbury.
Brickwell, John, Sawbridgeworth, Herts.
Clark, Thomas Edward, Bristol.
Hartill, Jeremiah, Wittenhall, Staffordshire.
Hill, William Robinson, Edinburgh.
Hughes, Owen, Cargilgog, North Wales.
Ince, Eugene Leys, Eaton-terrace, Eaton-square.
Murray, Charles, Oldham, Lancashire.
Procter, Sidney Edmund, Brackley, Northamptonshire.
Rickards, Richard, Clifton, Bristol.
Sibbald, John, Clonmel, co. Tipperary.
Whittenbury, Edwin Collier, Australia.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, November 13, 1856.

Down, John L. H., Torpoint, Cornwall.
Groom, William, Wisbech, Cambridgeshire.
Howell, Griffith, Llanelly, Carnarvon.
Procter, James, Congleton.
Roberts, Thomas Lewis, Blaengadi, Aberystwith.
Woodhouse, William, Norwich.

The following gentlemen also passed their examination in Classics and Mathematics, on the 18th and 19th instant.

Barron, Edward, St. Thomas's-street, Southwark.
Buzzard, Frank, Lutterworth.
Caldwell, William, Harleyford-place, Kennington.
Custance, James, Sutton, Isle of Ely, Cambridge.
Davy, Richard, Chumleigh, Devon.
Ellis, Edward, 31, Hawland-street, London.
Evans, Nicholl, Stoke Newington.
Fagge, Frederick, Hythe, Kent.
Foster, Philip, Leeds.
Gannon, John P., Hastings, Surrey.
Goddard, Eugene, St. John's-road, Clerkenwell.
Grabham, Charles, Lonsdale-square, Islington.
Hett, Arthur, Brigg, Lincolnshire.
Hughes, Richard, 138, Fenchurch-street.
Jackson, James C., Sawbridgeworth, Herts.
Jones, Walter, Queen's College, Birmingham.
Mason, Thomas E., Broad-street, Deal.
May, Joseph, Stoke, Devonport.
Moone, Edwin, Chapel-street, Salford.
Parson, Edward, Liskeard, Cornwall.
Roe, Edwin Hodgson, Eccles.
Ryland, Thos. E., Calthorpe-street, Birmingham.
Sharp, Edward, Truro, Cornwall.
Taylor, W. G., West Meon, Hants.
Terry, Septimus, Market-square, Northampton.
Walls, Charles, Queen's College, Birmingham.
Watson, Forbes, Raymond's Hotel, London-wall.
Wilson, H. O., Richmond-terrace, Bristol.
Woodhams, T. A., 44, Bedford-street, Strand.

DEATHS.

AYRES.—Nov. 13, at Ramsgate, James Ayres, Esq., Surgeon R.N., universally respected. In practice prior to 1815.

BASCOME—Nov. 11, at Chester, Edward Baseome, Esq., M.D., aged 53. Dr. Bascome was formerly of Demerara, and subsequently Medical Superintendent of Wyke House Lunatie Asylum, near Brentford. His last engagement was as Surgeon to the 1st Royal Cheshire regiment of Militia. Author of "History of Epidemic Pestilences."

HEATLEY.—Died at Up-park Camp, Kingston, Jamaiea, on the 1st of October, Robert Bell Heatley, M.R.C.S., Staff Assistant-Surgeon, of yellow fever, aged 25 years. A native of Alnwick, Northumberland.

BEQUEST.

BRISTOL ROYAL INFIRMARY.—Mrs. S. Lax has bequeathed the sum of £1000, *free of legacy duty*, to this Institution.

APPOINTMENTS.

BLENHEIM-STREET DISPENSARY.—Dr. BARNES WOOD, late Assistant-Physician to the British Hospital at Smyrna, has been appointed Physician to this Dispensary in the room of Dr. BURSLEM, now praetising at Bournemouth.

Dr. SEMPLE, of Torrington-square, has been appointed Assistant Medical Examiner to the Standard Life Assurance Office.

GROSVENOR-PLACE SCHOOL OF MEDICINE.—Dr. STANTON, late Physician to the Bristol General Hospital, and Lecturer on Medicine and Materia Medica in the Bristol School of Medicine; and Dr. LEARED, late Physician to the British Hospital at Smyrna, have been appointed Joint-Lecturers on Materia Medica in this School, in the room of Dr. AYRES, now Superintendent of Quarantine in the Mauritius.

SCHOOL OF PHYSIC IN IRELAND.—At a meeting of the King and Queen's College of Physicians in Ireland, held November 15, Dr. CHURCHILL was unanimously elected Professor of Midwifery, in the room of Dr. MONTGOMERY, resigned.

UNIVERSITY OF CAMBRIDGE.—At a Congregation held on the 12th instant, the degree of Licentiate in Medicine was conferred on Mr. C. J. Beard, of Trinity College.

GLASGOW UNIVERSITY.—Sir E. B. Lytton has been eleeted Lord Rector of this University, by a majority of 108 votes over Lord Stanley.

ST. MARY'S HOSPITAL AND DISPENSARY, MANCHESTER.—Humphrey Nicholls, Esq., has presented a donation of £300 to this Institution, in addition to a former gift of the same amount in December last.

SIR RICHARD BETHELL, the new Attorney-General, is the son of Dr. Bethell, who practised for many years as a Physician in Bristol.

THE QUEEN'S COLLEGE, BIRMINGHAM.—It must be gratifying to the friends of Queen's College to learn that the Rev. Chancellor Law has resumed the office of Vice-Principal, and was received with a most hearty welcome by a full Board assembled on Wednesday last. The Right Hon. the Earl of Warwick and Lord John Scott have been elected on the Council, to fill up the vacancies which have occurred, and have accepted office. Mr. Thomas Upfill has been unanimously appointed Treasurer. The Council have selected as the subject of the Warneford Prize Essays for the ensuing year, "The Anatomy and Physiology of the Kidneys." The founder's instruetions are: —"The interest of £1000 to be applied for ever for the institution of two Prizes, either in equal or unequal amount, as may seem to the trustees most likely to advance the great ends in view, which are to eombine religious with scientific studies and pursuits, to make Medical students good Christians, as well as able Practitioners of Medicine and Surgery. The compositions written for these Prizes to be of a religious as well as scientific nature; the subject to be taken out of any branch of anatomical, physiological, or pathological science, and to be handled in a practical or professional manner; and, according to those evidences of facts and phenomena which anatomy, physiology, and pathology so abundantly supply, but always and espeeially with a view to exemplify or set forth by instance or example the wisdom, power, and goodness of God, as revealed and declared in holy writ."

THE WILL of the late Dr. Buckland, the geologist, has been sworn under £16,000.

THE SURREY COUNTY HOSPITAL has been enriched by the payment of £100 on the part of Captain Rowley Platt, in atonement for an assault on Mr. Lawrence, Surgeon, of Brighton.

PENSION TO PROFESSOR ALISON.—We hear that Lord Palmerston has resolved to recommend her Majesty to confer a pension of £100 a year on Dr. W. P. Alison, late Professor of the Practice of Physic in the University of Edinburgh, in consideration of his distinguished services and of his philanthropic labours. Through a legal difficulty, caused by his resignation, the senate was unable to grant him a retiring allowanee out of the Reed Fund, but at a late meeting of the council it was determined to offer him a present of £250. The Government pension should certainly not have been less than £200 a-year.

CHOLERA IN INDIA.—A letter, dated from Ferozepore, on September 20, describes cholera as having nearly disappeared, but still lingering in the ranks of her Majesty's 70th Regiment. A letter of October 1, from Peshawur, furnished lamentable details of the prevalence of fever in that quarter. In the 24th Native Infantry the sick number upwards of 800; in the 27th Native Infantry upwards of 700, making together with the sick of the 64th Native Infantry, about 1,900 in hospital. Hitherto the Europeans had not suffered in a similar proportion.

VACCINATION FEES.—At Cork, Dr. Cummins was obliged to proceed, in the Recorder's Civil Bill Court, against Mr. Herbert, a schoolmaster, for vaccination of thirty of the pupils in the seminary of the latter. The sum claimed was 10s. per case, the school being nearly two miles distant, and Dr. C.'s supervision of the cases having been repeatedly required. After the evidence of the plaintiff, which was supported by that of Professor Harvey, Queen's College, Cork, Drs. Gregg and Corbett, the Recorder awarded a sum of ten guineas, with costs, to Dr. Cummins.

WEST INDIES.—At Jamaica there has been a great deal of sickness; indeed (says the *Colonial Standard*), we searcely remember any year in which malarial fever has been so general and so eontinued as the present. Yellow fever has been rather fatal among Europeans, especially where there has been an absence of experienced nursing. Among the deaths we have to regret that of Dr. Heatly, Staff Assistant-Surgeon. There have been several eases of yellow fever at Newcastle Barracks, a military station, the elevation of which—some 3000 feet above the level of the sea—was supposed to place it out of the range of this disease.

CHOLERA IN THE CAPE DE VERDE ISLANDS.—Cholera has made frightful ravages in these islands. So numerous were the deaths, that the survivors were unable, and in many cases afraid, to remove the dead bodies from the houses in which they died. Several houses containing dead bodies had been set fire to and consumed. It had not extended to St. Jago, and has now ceased at St. Vincent.

AN INDEX BANQUET.—The valuable work the "Bulletins de la Société Anatomique de Paris," which now reaches to 30 volumes, has long been far less consulted than it deserves in consequence of the work of a General Index. This task, which, owing to the multiplicity of the contents, was a work of immense labour, having just been completed by MM. Boueiller and Murelle, the Committee of the Society have just entertained them at a banquet. Many banquets have been held upon far less useful occasions, and we hope this appreciation will stimulate others to like laudable exertions.

PROPOSAL FOR A MEDICAL CLUB AT PARIS.—M. Letour, the indefatigable advocate of Medical Association, proposes a new project for a Medical Club, under the title of *Cercle Médicale*. He says, that to propose additional expenditure of money for this purpose to the Medical body, so oppressed with expenses at the present time, would be fruitless; but he proposes a junction of the numerous Paris Medical societies for this purpose. Besides the Academies and the large *Association de Prévoyance*, there are in Paris fifteen Medical societies, and one for each of the twelve *Arrondissements*, making in all twenty-seven societies, numbering altogether about 1100 members, the annual subscription varying from six to forty francs. Each of these societies possesses a more or less considerable reserve fund, and he calculates that a subscription of 300 francs from each would raise a sufficient sum to s t

the institution afloat. A subscription of 11,000 francs would amply suffice for the annual expenses of the club, to which, moreover, Practitioners who are members of none of the Medical societies would also, probably, attach themselves.

READING ROOM OF THE BRITISH MUSEUM.—The new circular reading room is rapidly approaching completion, and in May or June readers may expect to be admitted. It will be capable of seating 500 readers, with 4 or 5 feet of table-room to each.

LONDON MILK.—Dr. Hillier, in a recent report on the sanitary condition of St Pancras, says:—"The most emaciated and least healthy cows often yield the largest quantity of milk. The diseases most frequently fatal to the cows are said to be consumption and inflammation of the lungs. We know that infants suckled by nurses who are consumptive are liable to become consumptive, and there can be little doubt that infants fed on milk from consumptive cows are likely to fall victims to the same disease. Thinking it possible that the poorness of the milk might be entirely due to the manner in which the cows were kept, I obtained milk direct from the cows at one of the most unhealthy sheds that I could find; and, to my surprise, the milk, though not so good as country milk, was very far above the average of that sent out. There can be no doubt that the practice of adding water in large quantities is a very common one; the quantity employed, is, I believe, from 25 to 50 per cent. As far as my researches have extended, it is not common to have any other ingredient added than water; this, however, is a fraud which ought not to be allowed. The amount of cream varies much, even in specimens that have not been adulterated, but just as they come from the cows; this is much affected by the food and condition of the animals; but the specific gravity of the serum, and the amount of solid matter are much more constant, and are, without a complete analysis, the best guides to the purity of the milk. There is one point worthy of notice, that may assist the public in judging of the milk sold to them, it is this, that the very rapid rising of cream to the surface of any specimen of milk, so far from being a proof that it is pure milk, is generally an indication that it contains water. For it will be found that milk to which water has been added will have a much thicker layer of cream on its surface after standing about twenty minutes than pure milk has under the same circumstances. It is to be feared, that in some cases, water is added by the dairymen, not only to dilute the milk, but also to hasten the separation of cream, so that they may be able to obtain some from the milk before it is sent out to be sold. Thus, this most important article of diet is impoverished, not only by keeping the cows in an unhealthy state, but by the addition of water and removal of cream."

METROPOLITAN WATER SUPPLY.—An interesting portion of the Report of the General Board of Health relates to a comparison of the amount of organic matter discoverable in the water supplied now with that of 1851. The results are as follow, which we tabulate for more easy reference:—

	Organic Matter in 1851. Grs. per gallon.	Organic Matter in 1856. Grs. per gallon.
Grand Junction Water Company	3·07	1·38
West Middlesex	2·73	0·96
Chelsea	2·38	1·42
Southwark and Vauxhall	1·51	1·37
Lambeth Water	2·59	1·33
New River	2·79	0·968
East London	4·12	1·09
Kent Company	Difference about one-half in favour of 1856.	

The difference effected in this respect is, of course, to be attributed in some degree to the change of the localities from which many of the Companies derive their supply; but we believe we are justified in stating that very much of the improvement is due to the introduction, or improvement, of means of collection, filtration, and general management of the supply of water; and to such an extent has this been carried that the engineering works for the purpose have cost no less than £2,282,824, of which the New River Company have expended £566,084.

MORTALITY NOTABILIA. — The deaths registered in London, which in the two preceding weeks were 969 and 1006, rose in the week that ended last Saturday to 1090,—an increase which is usual in this month, proverbially known for bringing with it cold weather and fogs. In the ten weeks corresponding to last week of the years 1846—55 the average number of deaths was 1051, which, if raised in proportion to increase of population, becomes 1156. The rate of mortality, which now rules, is still considerably below the average. In comparing the results of the last two weeks the increase shown above will be found to arise chiefly from diseases of the organs of respiration; for the deaths referred to this class have increased from 200 to 258.

BIRTHS.—The births of 816 boys and 739 girls, 1555 children, were registered. Average, 1433.

METEOROLOGY.—The mean height of the barometer in the week was 29·649 in. The mean temperature of the week was 38·3°, which is 5·4° below the average of the same week in 38 years. The mean temperature was below the average on every day; and on Saturday, when the thermometer fell to 29°, the lowest point in the week, the mean temperature was 36·2°, or 7° below the average.

THE following are the number of Deaths from Small-pox Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	4	2	9	3	2
North	490,396	1	6	17	11	5	12
Central ..	393,256	2	7	3	3	3	11
East.....	485,522	..	2	11	8	7	15
South	616,635	..	6	8	9	7	5
Total..	2,362,236	3	25	41	40	25	45

DEATHS IN PUBLIC INSTITUTIONS for the Week ending Saturday, November 15:—

	Males.	Females.	Total.
Workhouses	49	62	111
Prisons	..	..	..
Military and Naval Asylums	3	..	3
General Hospitals	31	14	45
Hospitals for Special Diseases	3	4	7
Lying-in Hospitals	..	..	..
Military and Naval Hospitals	8	..	8
Hospitals for Foreigners, etc.	..	1	1
Lunatic Asylums	..	1	1

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, November* 15, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, Nov. 15, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.	38°3						44°7
Mean Temperature							
ALL CAUSES	1090	552	139	175	174	42	1050·8
SPECIFIED CAUSES	1079	550	139	175	173	42	1042·9
DISEASES:—							
1. Zymotic Class	212	168	11	19	12	2	265·7
2. Dropsy, Cancer, and others of uncertain seat	53	5	5	19	21	3	45·4
3. Tubercular Class	184	64	69	43	8	..	172·3
4. Of Brain, Nerves, etc.	113	58	9	21	22	3	113·0
5. Of Heart, etc.	48	6	10	14	17	1	38·2
6. Of Respiratory Organs	258	164	10	30	43	11	175·8
7. Of Digestive Organs	47	14	6	16	10	1	62·8
8. Of Kidneys, etc.	14	1	5	1	6	1	11·4
9. Of Uterus; viz. — Puerperal Disease, etc.	11	..	7	3	1	..	9·2
10. Of Joints, Bones; viz.— Rheumatism, etc.	5	2	2	1	..	..	9·0
11. Of Skin, etc.	6	1	1	..	3	1	2·7
12. Malformations	2	2	..	..	..	..	4·5
13. Debility from Premature Birth, etc.	22	22	..	..	..	..	25·1
14. Atrophy	28	18	..	1	9	..	25·1
15. Age	38	..	..	..	19	19	40·9
16. Sudden	11	7	1	2	1	..	10·1
17. Violence, Privation, etc.	27	18	3	5	1	..	30·8
CAUSES NOT SPECIFIED	11	2	..	..	..	..	7·9

TO CORRESPONDENTS.

Mr. Jones.—The notice arrived too late for insertion. Secretaries of Societies are requested to send notices of the subjects to be brought forward at any meeting not later than the Wednesday before the publication of the Journal.

If *J. W.* is very anxious on the matter we can have no objection to state that he is desirous to have the opinion of Medical men as to the effect upon horses of singeing their coats. We suggested a reference to the *Veterinarian*, but J. W. says he does not see that journal.

Carmarthen.—It is the old story, and we are glad to see that Mr. Rendall only got his five shillings for one corn. Much good would be done if people had conrage to resist the extortion of the corn-cutters more generally.

Dr. Chaumont's case is at the printer's.

Chlorodyne.—Mr. Davenport informs us, that the price of this substance is 35 per cent. less than that stated by a correspondent last week, and 50 per cent. in large quantity. He says it is a combination of perchloric acid with a "new alkaloid" discovered by Dr. Collis Browne while with his regiment in India.

The Royal Medical Benevolent College.—Mr. Stilwell writes,—"Having been the Medical attendant from the opening of the College, almost a daily visitor, and in constant friendly communication with the pupils, also having a son at the College; probably there is no person better acquainted with every circumstance which occurs, or more likely to give correct information; but only two letters of inquiry have I received, nor have I heard of any visits of inspection to the College by any of the parents, to confirm or correct the statements of the pupils, who, I think, are likely to overdraw occurrences without the intention of making incorrect reports, especially if they find public notice be taken of them. Whatever may have been the shortcomings of the Royal Medical Benevolent College, I can with confidence assert that the endeavours for the comfort, welfare, and instruction of the pupils by those who have the immediate management, cannot possibly be exceeded, and this I also know is the hearty desire of Mr. Propert and the Council;—every person may convince themselves of this—but should anything be thought deficient in the management, the remedy is in the yearly change of the Council. The Medical Profession cannot but derive benefit and honour from the Royal Medical Benevolent College, and the most tender care should be taken, that no inconsiderate or unjust complaints damage its early reputation; but, on the contrary, by kind consideration and liberal assistance, to strengthen the hands and cheer the minds of those so anxiously engaged in establishing and promoting the well-doing of so valuable an Institution." We quite agree with Mr. Stilwell, but cannot see that harm is done by free discussion, if truth be elicited.—Ed.

Deaths from Chloroform.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following paragraph (copied from the *Medical Times and Gazette* of November 15th) in a letter addressed to you on "The effect of Chloroform upon the results of Surgical Operations," contains a statement, which is, I think, likely to injure the reputation of the London Hospitals, and I am, therefore, most anxious the correctness of it may be ascertained. I am, &c. Alfred Burton.

Brighton, November 17.

"We cannot, after the examination of the evidence which has been adduced, be longer led astray by the often repeated assertion that there is a saving of life upon the whole; and it would be absurd to suppose that the cases of sudden death from chloroform constitute the full measure of the mortality. How few even of these are generally known or reported! Hardly any in private practice, and now, even in Hospitals, they are concealed."

(This statement was made by Dr. Arnott, not by us.—Ed.)

Sydenham Society.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Might I ask you whether the Sydenham Society has become defunct? There has been no issue of works published by it this year. This year's subscription, I believe, has been regularly paid by its members, and they, of course, have as usual looked forward to the receipt of promised volumes. I am, &c. A Very Old Subscriber.

Mr. Goodman.—Chester Infirmary was founded in 1755, by Dr. Stratford. The present structure, a large and handsome brick building, was erected in 1761. It has 100 beds; and the upper storey on the north side is devoted to a fever ward.

Senex.—We would willingly have done our best to answer the query; but could not decipher the writing. It reminds us of a description we once saw of the hieroglyphics with which Napoleon was wont to treat Marie Louise,—"that the lines appeared to have been scattered over the paper by the explosion of a bomb-shell, they are so knocked into cocked hats and mashed cockroaches." Our readers little know the amount of lost time involved, and the liability to errors caused by such writing.

Inquests after Medical Certificates.—The following letter has been received by an esteemed correspondent, in reply to a question whether a Parish Constable had a right to demand an inquest after a certificate of death had been received by a district registrar:—

[General Register Office, November 14, 1856.

Sir,—I am directed by the Registrar-General to acknowledge the receipt of your letter of the 13th instant, and, in reply, to inform you that he is not aware of any law to prevent a Coroner from holding an inquest on the body of any person, notwithstanding the cause of the death of such person has been duly certified by a qualified Medical Practitioner.

I am, Sir,
Your obedient servant,
Thos. Mann, Chief Clerk.

Philanthropos.—In a case, Harring v. Walrond, it was laid down that to show a monster for money was a misdemeanour. The child had fou legs, four arms, and two heads, and but one abdomen; the child died and was embalmed for the purpose of exhibition. The Lord Chancellor ordered it to be buried in a week.

Scotus.—1. The Aberdeen Philosophical Society's terms are 5s. per annum, with an entrance fee of 10s. 6d. 2. There was no library in 1851. The University Library of Edinburgh has upwards of 92,000 volumes.

S., Milton.—The number of inquests held in the three years 1851—53, in the 81 boroughs of England and Wales was 53,174, giving a proportion of 1 inquest to every 23 deaths from all causes. We cannot concur in all your remarks as to the Coroner's Court; but most unquestionably there is great need of inquiry, and much room for improvement in some of the details. Some thousands of the jurors at the above inquests were unable to sign their names. It is certainly rather startling that there is a necessity for an inquiry in every 23 deaths in England; but perhaps the fault is on the safe side.

Mr. Hamilton.—Either 2 or 7, or communicate by a private note.

M.D., Edinburgh.—The questions for the East India Company examination appeared in this journal for March 1, 1856, January 13, 1855, September 1, 1855.

Mr. Wagstaffe's letter shall appear next week.

Mr. Holmes's reply to Dr. Arnott is in type, but is unavoidably postponed.

COMMUNICATIONS have been received from—
Mr. Travers; Dr. Mackenzie, Glasgow; Dr. Montgomery; Mr. Wilde, Dublin; Dr. Jenner; Dr. Robert Lee; Mr. Toynbee; Mr. Tomes; Mr. Kesteven; Mr. Grimsdale, Liverpool; Mr. Shain; Chlorodyne; Mr. Goodman; Dr. Kingsley; Senex; Philanthropos; P.R.C.; Mr. Stilwell; Mr. Jones; Dr. Ballard; Mr. Brown; Mr. Laurence; Mr. Barwell; Dr. Child; Mr. Sands Cox, Birmingham; Mr. Grantham; Mr. Burton; Mr. Macilwain; Mr. Collet; Mr. Rogers; Dr. Ashley; Mr. Leet; Dr. G. Hewitt; Dr. Chaumont; Mr. Davenport; Mr. R. Nixon; Mr. E. J. Armstrong; Messrs. Salt and Son; Mr. L. Evans; Dr. Arthur; Dr. C. G. Wiebe; Mr. R. M. Craven; P. Downey; Dr. H. W. Watson; Mr. R. Flockton; Mr. E. B. Adams; Mr. W. Hibbert; Mr. F. F. Thompson; Dr. Coates; Mr. D. Parry; Dr. W. Daniel; Mr. Ley; Mr. Hamilton; S., Milton; T., Worcester; Scotus.

APPOINTMENTS FOR THE WEEK.

November 22. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

Medical Society of London, 8 p.m.: T. H. Wakley, Esq. "On the Treatment of Strictures of the Urethra by means of Urethral Guides and Tubes; with a Supplementary Notice of the Adaptation of similar Mechanism to the Treatment of Strictures of the Rectum and Œsophagus, and for the Dilatation of the Cervix Uteri."

24. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

25. *Tuesday.*

Operations at Guy's, 1 p.m.

Royal Medical and Chirurgical Society, 8½ p.m.: Subjects—Mr. Henry Lee "On a Case resembling Phlegmasia Dolens in a Phthisical Patient."—Dr. G. Hewitt "On the Pathology and Treatment of Bronchial Affections in Infancy and Childhood."

26. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 3 p.m.

27. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

28. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT OF THE DISEASES OF THE EAR.

DELIVERED AT

St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.,
Aural Surgeon to St. Mary's Hospital, Lecturer on Aural Surgery at St. Mary's Hospital Medical School, and
Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

LECTURE VIII.

(Reported by JAMES HINTON, Esq.)

THE GELATINOUS POLYPUS.

NEXT in frequency of occurrence to the vascular polypus is the one which has been termed the gelatinous polypus. This name has been given to it from the soft jelly-like appearance presented by its free portions, and from the similarity in general aspect to the gelatinous nasal polypus. Careful and minute examination, especially when aided by the microscope, does not, however, confirm the propriety of the above designation; on the contrary, as it will be seen in the course of my observations, the term fibro-gelatinous polypus would be applied to it with much greater propriety.

STRUCTURE OF THE GELATINOUS POLYPUS.

This growth generally increases to a large size. I shew you specimens from my collection which vary from being as large as the last joint of the little finger to the size of a small bean. Sometimes this polypus has a single root and body, but more commonly two or more bodies have a common base. The root, which is attached to the wall of the meatus, is generally not larger than from a line to two lines in diameter. Examining the polypus as it approaches the orifice of the meatus, it will be found that, attached near to the root, are numerous small rounded growths, very much like to delicate granulations; these appear to be the rudimentary growths, confined to their small size by the pressure exercised upon them by the walls of the meatus and the large expanded part of the outer portions of the growth. Approaching the orifice of the meatus, the polypus assumes a globular form, and consists of from one to as many as six or eight rounded heads. When these heads are numerous, they present pedicles, varying in length from a quarter to half an inch, by which they are connected to the root. The surface of this polypus is smooth, and it is constituted by a layer about a quarter of a line thick; this is separated from it by maceration, and it consists of cells having every resemblance to those of the epithelium covering the buccal mucous membrane. This layer of epithelium is as thick and white as ordinary writing paper, and when detached and floating about, it keeps the forms of the polypus from the surface of which it has been separated. The interior of the gelatinous polypus is composed of corpuscles and fibrous tissue; the proportions of the two elements vary in different specimens, but the fibrous tissue generally predominates. The corpuscles are of a rounded form, and they vary both in size and shape. In a specimen which was a good example of this variety of polypus, as it is generally presented to the surgeon (it being white and soft, so as to be easily compressible by the thumb and finger), I found that these cells varied in shape from being quite round to an irregular oval,—from being the size of a blood-corpuscle to one half or even one quarter the magnitude of that body,—the greater number appeared certainly smaller than the blood-disc; but they presented every variety of size between that of a blood-disc and a fine granule, and there was very little symmetry in shape or size even between those that were nearest to each other. These cells are not generally in close contact, but they are separated by a delicate gelatinous substance, which is sometimes quite transparent and structureless; sometimes this gelatinous matter is very abundant, and forms by far the larger portion of the mass. In other parts, where the polypus is resisting, these cells are separated by delicate, wavy bands, having the appearance of fibres, and to the surface of these fibres the cells are observed to adhere. In some parts, these wavy, gelatinous-looking fibres form almost the entire substance of the polypus; the rounded cells being scattered very sparingly; in other parts, these fibres are absent. The wavy fibres run in the long diameter of the polypus; they possess considerable toughness, and, although they are easily separated from each other, so that individual fibres can be isolated, they cannot be torn across without the use of considerable force. In some instances, these fibres are extremely firm, and the polypus is entirely composed of them, so that the growth is solid and very hard. When they are separated from each other, they have the appearance of transparent lines, whose diameter varies from half to a quarter of that of the blood-disc. Interspersed through the substance of the polypus were many spindle-shaped crystals. Upon the application of acetic acid, the fibres became swollen, and assumed a confused, gelatinous appearance, and lost all their fibrous character; the corpuscles were also converted into a similar mass, in which, however, a large number of granules were observable. The action of the acetic acid also brought into view a large number of fine, spindle-shaped crystals, some of which only had been previously observed. The gelatinous polypus sometimes attains to so great a degree of hardness, that it is with difficulty cut through by a pair of scissors; this peculiar condition appears to be produced by the increase in quantity and solidity of the fibrous tissue, and in the diminution of the quantity of corpuscles, and in the absence of the gelatinous matter between them. It has been already stated, that the vascular polypus is composed of rounded cells; these, however, differ very much from the cells of the gelatinous polypus, in being all of nearly the same size and shape, and in being larger than those previously described. The cells of this polypus do not appear to be separated by any substance, but they are agglomerated together, and form the entire mass of the polypus. The exterior, which is smoother than the gelatinous polypus, and which is always covered by its secretion, is composed of a layer of elongated epithelial cells, which are frequently terminated by ciliæ; the latter are often seen in active motion for a considerable period subsequent to the removal of the portion of polypus which they cover.

TREATMENT OF THE GELATINOUS POLYPUS.

The difference in the structure of the two kinds of aural polypi naturally prepares the surgeon to expect that the treatment requisite for their removal would also differ. This is undoubtedly the case. The use of the potassa cum calce, which has proved of so great value in the destruction of the vascular polypus, is of but little service in the treatment of the gelatinous, or, more properly speaking, the fibro-gelatinous polypus. The escharotic produces but comparatively slight effect upon fibrous tissue, and the only plan of removing it is by extraction. For this purpose the best instrument is a pair of ring forceps, the ends of which should be reduced in size, so as not to be larger than from two or three lines in diameter. These forceps should be introduced into the meatus to the distance of half or three-quarters of an inch, and the polypus seized as near as possible to its roots; the forceps should then be used as a lever, the outer part of the ear being the fulcrum, and the polypus turned out of the cavity. But little force is required, and, as a general rule, the diseased growth is removed without difficulty, in an entire state. In one case, that of the wife of a medical man, a large gelatinous polypus, which filled the greater part of the meatus, was removed by the frequent use of the syringe and

warm water. The traction produced by the water in making its way outwards, seemed in the first place to diminish the supply of blood to the growth, and it gradually became of a dark colour, and it was ultimately expelled. Upon examining the meatus after the removal of the polypus, the surface to which it was attached is distinctly discernible, and, for a short time, there is a slight oozing of blood from it. In some cases portions of the root of the polypus remain, but they do not, generally, require any further treatment, but gradually atrophy and disappear. On the contrary, if any of the small globular bodies remain attached to the root, they rapidly increase, and the diseased growth has again to be submitted to operation. The removal of the fibro-gelatinous polypus is generally productive of relief, not only to the unpleasant head symptoms, which are caused by its pressure on the contents of the vestibule, but to the diminished power of hearing. The improvement in the power of hearing does not, however, as would be supposed, take place at once; on the contrary, it not uncommonly occurs that there is, at first, no increased power of hearing, but that it gradually and very slowly improves. This may, perhaps, be accounted for, from the circumstance, that the polypus has for a long period exercised considerable pressure on the membrana tympani, or, where that structure no longer exists, upon the tympanic ossicles, and that these organs only slowly return to their natural state.

Gelatinous polypus in the left ear for seven years; in the right ear for one year—noises in the right ear—giddiness upon pressure of the polypus—cure by extraction, followed by the application of alum and chloride of zinc.—Harriet Wenlock, aged 58, a washerwoman, strong, rather stout, and in good health, with the exception of the symptoms produced by the polypus, consulted me in the commencement of April, 1850. She stated, that, seven years previously, without any other symptoms, discharge issued from the left ear, and it has never disappeared; shortly after the appearance of the discharge a rounded body was observed at the orifice of the ear. About a year ago the right ear began to discharge, and there soon appeared a swelling at the outer orifice. She complains of great noises in the right ear; these vary much; sometimes they appear like a humming, at others like a tinkling of a bell, then as if it were loudly ringing. When the surface of the tumour of the left ear is pressed upon she feels giddy, and if it is continued, she loses her consciousness and falls. At present, and for a considerable period she has been so hard of hearing, that she requires speaking to very loud close to the head. Upon examination of the right ear, a round, pale-coloured polypus, more than half an inch in diameter, was observed to protrude from the orifice of the meatus, and below it was another growth about half the size. At the external meatus of the left ear a rounded body was observable; this was not more than a line in diameter, and it did not extend beyond the orifice. Not finding any symptoms which indicated an affection of the bone, I thought it better at once to remove the polypi, and selected the right ear to commence upon. The diseased growth was removed with the greatest ease by the use of the ring dressing forceps, in the manner above described; the patient suffered only a slight but momentary pain, and there was a very trifling oozing of blood. Upon examination after its removal, the polypus was found to consist of the two rounded heads already noticed, each having a second mass about half the size continuous with it, and extending nearly as far as the root; the latter was very narrow, not being more than a line or a line and a-half in diameter. The surface of the expanded part of this polypus was found to be covered by flat scales, like those of epidermis, but nearer to the root; elongated cells, armed with ciliæ, were also distinguished. The rounded parts which were exposed to the air were smoother and whiter than those which were concealed, the latter presenting a somewhat rugous surface. On April 22, a fortnight after the removal of the polypus, upon examination, the quantity of the discharge was greater than usual, and there was observed to be a rounded growth near to the membrana tympani, as if the roots of the polypus still remained; to this substance a solution, composed of half a drachm of alum to two ounces of water, was ordered to be applied thrice daily. The polypus was removed from the left ear; it consisted of a pedicle, a body, and three rounded heads, two of which had been seen at the orifice of the meatus during life.

April 20.—The power of hearing is improved; has had slight pain in each ear, also some giddiness. The discharge is less abundant, but still of an offensive odour. In the right ear the remnant of the polypus is seen attached to the upper part of the meatus, near to the membrana tympani; in the posterior part of the latter an orifice was observed. In the left ear the roots of the polypus appeared to fill as much as one half of the meatus. The drops of the solution of alum to be continued.

May 6th.—*Right Ear.*—The discharge has ceased; the hearing has improved, and is much better after blowing the nose. The polypus has wholly disappeared; the mucous membrane of the tympanum is seen through the orifice of the membrana tympani; it is thick and red.

Left Ear.—The roots of the polypus are much in the same state.

May 13.—The roots of the polypus in the left ear remain as a week ago. Applied the chloride of zinc to their surface.

May 27.—*Left Ear.*—Polypus smaller; again applied the chloride of zinc.

June 24.—Discharge from left ear gone. The polypus much diminished in size. Air passes through the left membrana tympani. The solution of alum was continued; and in a fortnight the polypus had wholly vanished.

Gelatinous polypus cured by extraction—hearing power improved.—J. W., Esq., aged 24, a medical student, pale and not strong, consulted me on the 24th of October, 1851, on account of a very considerable degree of hardness of hearing, so that he was obliged to be spoken to at a distance not further than a foot from his head; he also had an abundant discharge from the left ear. The history of the case was, that twelve years ago he had an attack of porrigo, for which the head was shaved; during this attack, he was very deaf in both ears; but he quite recovered. A year ago he became slowly dull of hearing in the right ear; and for eight months the left ear has been gradually losing the power of hearing. Has had pain in the left ear lately, attended by discharge; the latter varies much in quantity, and has a very offensive odour. Upon examination, the hearing distance of the right ear with my watch was only half an inch; the surface of the membrana tympani was dull, and its substance opaque.

Left Ear.—Watch only heard when pressed upon the ear. A polypus filled the meatus and extended as far as the orifice of the meatus. This polypus was removed by the forceps in the manner already described, and the power of hearing slowly improved.

Gelatinous polypus removed by forceps, and potassa cum calce applied to the roots; cure.—Miss E. H., aged 26, consulted me on April 4, 1851, on account of a discharge from the right ear. The history of the case, as detailed to me, was, that at the age of 16, she had an attack of scarlet fever, accompanied by pain in both ears, but especially in the right. The pain in the right ear was followed by a discharge which has continued up to the present time, with the exception of one occasion, on which it disappeared for a fortnight, when the pain was much increased. Upon examination a polypus of a leaden hue was observed to project from the orifice of the meatus; it was stated that this growth had been seen there during the four months preceding the application for advice, and that pressure upon it always produced giddiness. This polypus was found to be attached to the posterior and inferior part of the meatus, near to the membrana tympani. This growth was removed by means of the dressing forceps, and, as the roots had a tendency to increase in size, the potassa cum calce was applied once, and the growth was effectually destroyed.

Gelatinous polypus following bathing; removal by operation; cure.—J. D., Esq., aged 36, consulted me on May 20, 1853, on account of deafness in the right ear, accompanied by discharge. *History.*—Five years previously, after bathing in the sea, had pain in the left ear, which was followed by discharge; this has continued ever since, and at times has been very offensive. For the last two or three months this ear has become so deaf that he can scarcely hear any sound with it. On *examination* a large gelatinous polypus was found occupying the meatus, nearly as far as the orifice. It was removed by means of the ring forceps, and the hearing was immediately improved. An orifice was observed in the membrana tympani at its posterior part. The patient's hearing continued to improve; the watch was heard at the distance of a foot; the discharge wholly disappeared. The roots of the polypus were found to have been attached to the surface of the meatus, close to the membrana tympani.

LECTURES
ON
GENERAL NATURAL HISTORY.

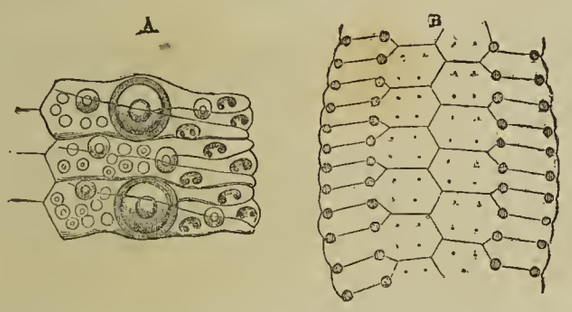
By THOMAS H. HUXLEY, F.R.S.,
Lecturer on General Natural History at the Government School of Mines and Fullerian Professor of Physiology, Royal Institution.

LECTURE IX.

(Continued from page 463.)

In the *Echinidea*, as for instance in the ordinary *Echinus* or sea-urchin, the perisoma around the mouth is usually strengthened for some distance by irregular oral plates, and a very much smaller space around the anus is similarly protected by anal plates. The rest of the body is supported by a continuous wall made up of distinct, more or less pentagonal plates, which is called the *corona*. Of these plates there are twenty principal longitudinal series, constituting the great mass of the corona; and ten single plates, which form a kind of ring around its antambulacral margin. The twenty series of longitudinal plates are disposed in ten double series—five ambulacral, and five inter-ambulacral, alternating with one another throughout the circumference of the corona. Each double series of plates presents a zig-zag suture in the middle line, formed by the alternating arrangement of the triangular extremities of its component elements. There is, therefore, such a strongly-marked suture running down the middle line of each ambulacrum and of each inter-ambulacrum. The sutures between the ambulacra and the inter-ambulacra on the other hand are less obvious and more straight. Each ambulacral plate is subdivided by a greater or less number of sutures, which traverse it transversely, into a corresponding number of minor plates; and these, inasmuch as they are traversed by the canals or pores, which give exit to the vessels whereby the suckers are placed in communication with their basal vesicles and with the ambulacral vessel, are called "pore plates." In the common *Echinus sphæra* (Fig. 3 A) each ambulacral plate is thus divided into three

Fig. 3.



(After Müller).—A. Three ambulacral plates of *Echinus sphæra*, exhibiting the sutures of the pore plates of which each ambulacral plate is composed. B. Part of the petaloid ambulacrum of a clypeastrid.

pore plates, traversed altogether by six pores or short canals. The outer openings of these canals are arranged obliquely in pairs upon little excavated shields, sculptured on the face of the ambulacral plates, close to its outer or inter-ambulacral edge; but their inner extremities are quite differently disposed.

There is, therefore, a pore plate or subdivision of the ambulacral plate corresponding with each pair of pores; and this arrangement would appear to hold good for all *Echinidea* except the Clypeasters, where the pores of the locomotive feet are grouped together in numbers upon a single plate. (Fig. 3 B).

The apical extremities of the ambulacra abut upon the five smaller of the ten single plates. Each of these is perforated, and supports the eye-spot discovered by Prof. E. Forbes; it is thence called an "ocular" plate. The apical extremities of the inter-ambulacra, on the other hand, correspond with the five larger plates, alternating with the ocular plates, and, like them, perforated. The aperture is, however, larger, and constitutes the exit for the generative products. One of the five *genital* plates is larger than the others, and marked by a peculiar porous elevation, the "madreporic tubercle." Now, since the madreporic tubercle is inter-ambulacral, it follows that whenever the mouth and anus are central, a plane drawn perpendicularly through the anus and the madreporic tubercle, will, as M. Agassiz was the first to point out, cut one of the ambulacra in the median line, and hence will divide the body into two symmetrical portions, each portion consisting of two and a-half ambulacra, and two and a-half inter-ambulacra, so that however radial such an Echinoderm might appear to be, it would in reality be bilaterally symmetrical. In most *Echinidea* there is not even this symmetry, the position of the madreporic tubercle being usually, as Müller has pointed out, lateral, while the anus in the *Echini* is approximated to one ambulacrum.

In consequence of being able to distinguish this odd or anterior radius by the position either of the anus or of the madreporic tubercle, it is possible to separate in any of the *Echinidea*, the three anterior ambulacra, as the "Trivium," from the two posterior, the "Bivium;" and in the fossil genus, *Dysaster*: this separation of the ambulacra into trivium and bivium exists naturally. Müller has pointed out that in all the flattened *Echinidea*, with a special ambulatory surface, the latter is formed by the bivial ambulacra and inter-ambulacra, while in the similarly modified *Holothuridea* the animal rests upon the trivium.

With the exception of certain paleozoic forms (*Palæchinus*), the composition of the skeleton of the *Echinidea* is always essentially similar to that which has been just described; but the form of the body and the relative positions of the anal and oral apertures may vary very much. In the *Echinoida* (*Cidaris*, *Echinus*) the body is spheroidal, and the oral and anal apertures are opposite and central, or very nearly so. In the *Clypeastroida* (*Clypeaster*, *Echinocyamus*) the form of the body varies from a spheroidal to an excessively flattened and even lobed shape. The mouth remains central, but the anus varies in position from the apical surface to the margin, or even to the oral surface, as in *Echinocyamus*.

In the third division of the *Echinidea*, the *Spatangoida* (*Spatangus*, *Amphidotus*, *Ananchytes*), the form is usually a somewhat depressed oval, and both the oral and the anal apertures are excentric. The madreporic tubercle and the genital and ocular plates, on the other hand, remain in the apical region in all *Echinidea*.

The ambulacra present important variations in the three divisions of the *Echinidea*. In the *Echinoida* they are "homogeneous," presenting the same composition from their oral to their apical extremities, and having nearly the same size and arrangement of the pores throughout. Furthermore, the ambulacra are widest in the middle, and taper gradually to each extremity (*Echinus*), or are of nearly the same size from one end to the other (*Cidaris*).

In many *Clypeastroida*, on the contrary, the oral and the apical portions of each ambulacrum differ very widely, or are "heterogeneous." The apical moiety is usually very wide in the middle and tapers to a point marginally, where it joins the oral portion. Hence there is an appearance of five petals diverging from the apex; and such ambulacra are called "petaloid." In the oral portions of the ambulacra, on the contrary, the pores are either scattered widely over the ambulacral (and sometimes over the inter-ambulacral plates) forming "pore-areæ;" or they are arranged in bands which ramify over the inter-ambulacral as well as the ambulacral plates, giving rise to what Müller has termed "pore-fasciæ." In the *Spatangoida* (Fig. 6) the ambulacra commonly present the same heterogeneous character; but the oral portions do not form fasciæ; and it not unfrequently happens that the anterior ambulacrum becomes more or less abortive, so that only four petals are obvious on the apical surface instead of five.

The growth of the shell of the *Echinidea* is effected in two ways, partly by addition to the circumference of the existing plates, partly by the interpolation of new ambulacral and inter-ambulacral plates at the apical end of each series. New plates are never added to the oral extremity of the corona proper, although in *Cidaris* such additions appear to take place in the movable buccal continuations of the ambulacra and inter-ambulacra, developed in the oral membrane.

The surface of the plates of the corona in the *Echinidea* is covered with minute rounded elevations, or "tubercles," to which are articulated the spines so characteristic of the group. The tubercle may be either simple or marked by a central pit, into which and a corresponding pit on the head of the spine a ligament of attachment is inserted. Furthermore, cap-

sular muscular fibres connect the neck of the spine with the base of the tubercle, and effect the varied movements of which the organ is capable. The spines of the *Echinidea* vary very much in form and size, from the close-set velvety pile of *Scutella*, or the delicate spoon-shaped blades of *Amphidotus*, to the long-pointed lances of *Echinus* and the great clubs of *Cidaris*. Even on the same Echinoderm the spines may, as in the two latter genera, vary very much in appearance; and it becomes necessary to distinguish those large ones which form a continuous series from one end of an ambulacrum or inter-ambulaerum to the other, as "primary" spines, from the other less complete "secondary" and "tertiary" series.

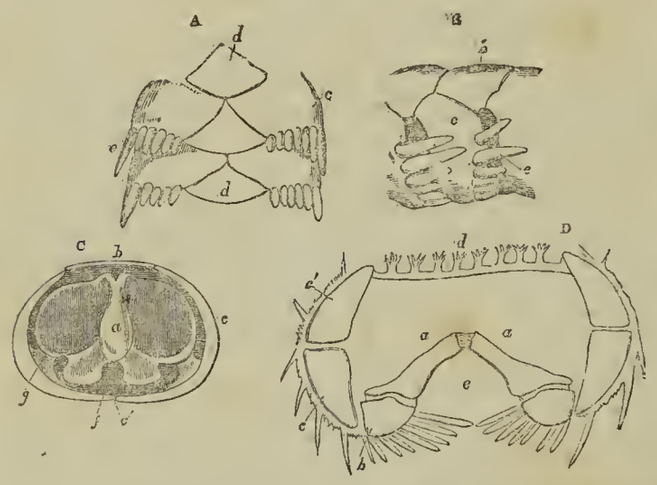
If we turn to the interior of the shell of the *Echinidea*, we find in the *Echinoida*, that ambulacral or sometimes inter-ambulacral plates of the oral margin of the corona are produced into five perpendicular perforated processes, which arch over the ambulacra, and are called the *auriculæ*.

Besides these, processes are developed from the ambulacral plates in *Cidaris*, which form a sort of wall on each side of the ambulaeral canal, but do not arch over it. In *Clypeaster* similar processes form complete arches; and in the flattened Clypeastroid, *Scutella*, the oral and apical walls of the corona are united together by calcareous trabeculæ, so that the cavity of the body is restricted to a very small space.

The *Spatangoida* present neither *Auriculæ*, nor other internal processes.

In the *Ophiuridea* the skeleton is extremely different from that presented by the *Echinidea*. The body, or calyx, is covered with numerous plates, very variously arranged, but of which five, placed inter-ambulacrally in the immediate neighbourhood of the mouth, are frequently larger than the others, and receive the name of *scuta buccalia*. The structure of the arms is very different from that of the body (Fig. 4).

Fig. 4.



A Ventral, B Lateral, views of a ray of *Ophiura texturata* (*Ophiolepis ciliata*). C. Transverse section. *a*. "Vertebral" ossicle of ray. *b*. Antambulacral plate. *c*. Lateral plate. *d*. Ventral or superambulacral plate. D. Section of a ray of *Astropecten aurantiacus* (after Gaudry). *a*. Ambulacral or "vertebral" ossicles. *b*. Adambulacral ossicles. *cc'*. Marginal ossicles. *d*. Paxillæ of antambulacral surface.

Each arm contains an internal solid axis, composed of a series of quadrate ossicles(*a*), each consisting of two halves, united by a longitudinal suture, and articulated together by tenon and mortice joints upon their terminal surfaces. Each ossicle supports a ring, composed of four plates; one antambulacral (*b*), one ventral, or, rather, superambulacral (*d*), and two lateral (*c*). The lateral plates meet in the middle line, above and below, and correspond precisely neither with the marginal, nor with the adambulacral plates of the *Asteridea*, though Müller considers that they may be regarded as modifications of the latter (*infra*). The pores or apertures for the suckers are placed between the lateral plates on each side, and are frequently covered over by special plates, the *squamæ tentaculares*. The oral aperture is produced in the direction of the ambulaera, so as to have a stellate form, and the interspaces of the rays of the star are occupied by angular projections of the skeleton, commonly, though not very properly, termed the "oral angles," each of which consists of five pieces. In fact, the two constituent portions of each vertebral ossicle nearest the mouth are movcably articulated with one another, while each is anchyosed with an inter-ambulaeral piece. Transverse muscles connect the two inter-ambulaeral pieces, which are further united by a single perpendicular plate, articulated along their oral edges, and termed the *torus angularis*.

The free surface of the *torus angularis* looks into the mouth, or rather into the buceal vestibule in front of the true mouth, and supports a number of short flat processes, the *palæ angulares*, which are articulated upon it; and, as they are capable of being moved by special muscles, they doubtless serve as teeth.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

(Selected, by Authority of the Director-General, from Documents in the Office of the Army Medical Department.)

No. XXVII.

OBSERVATIONS ON THE STATISTICS OF (MEDICAL) DISEASES OF THE STOMACH AND BOWELS,

as they affect soldiers, officers, women, and children, in India.

By CHARLES ALEX. GORDON, M.D.
Surgeon 10th Regiment of Foot.

(Continued from page 513.)

The subject of "Intestinal Worms" is of more importance to the Indian Surgeon than is generally believed; nor does the statistical table appended to the first portion of the present paper, give a just idea of the extent to which these entozoa affect persons in that country.

Considering how liable children in the United Kingdom are to be thus affected, the total exemption of those of the 10th Regiment in India is somewhat remarkable. So far as can be learned from Hospital records, the only description of intestinal worms that occurred was the common Tænia; and to judge from these documents, length of service or station does not seem to have had any influence upon the prevalence of the disease.

In reality, however, locality has had a very great influenee on the rate of occurrence of these cases, the proportion that happened in the Punjaub having been vastly greater than what were observed in the lower provinces of Bengal. In fact, so common was the malady among our soldiers there, that it was looked upon as endemic in the country. But while its frequency thus increased, such a successful remedy was discovered for it, that there was seldom necessity to admit a soldier into Hospital on this account, an entire worm, of considerably more than twenty feet in length, being often expelled by a person within three hours after taking a couple of drachms of the remedy.

Space will not admit a full description of this anthelmintic, which seems to be more successful, and is at the same time far cheaper than kussoo: but I may mention that its native name is kameela, or reroo,—that the substance used is the pubescence on the stems and seed-vessels of the Rottlera tinctoria, section Crotoneæ of the N. O. Euphorbiaceæ (Loudon),—that the first hint I received of its properties was from Dr. C. McKinnon of the Bengal Horse Artillery, who had his attention directed to it by observing its success in the cure of tape-worm among dogs,—that its ordinary dose for a man was ʒij of the powder, or an equal quantity of a spirituous tincture repeated, if necessary, after the expiration of three hours. And that full particulars of the remedy are contained in a paper by Dr. T. Anderson, of the East India Company's Service, and for some time doing duty with the 10th Regiment, in the Indian Annals of Medicine for October, 1855.

The origin and mode of propagation of Tænia in the Punjaub well deserve the attention of Medical Officers serving there, and being here prevented, by the limits to which a paper is necessarily restricted from enlarging upon the present theories regarding its development and generation, I would refer those interested in such subjects to an article by Professor Owen in "Orr's Circle of the Sciences," division "Organic Nature," No. XXI., page 273.

The number of cases of Dysentery borne upon the returns of the corps give an annual average—

	Per cent. to strength.		Per cent.	
Among Soldiers of	10·57	and	11·47	of deaths to treated.
,, Officers	5·37	,,	,,	,, ,,
,, Women	6·70	,,	26·24	,, ,,
,, Children	2·73	,,	15·00	,, ,,

It is somewhat remarkable that although 22 cases appear to have occurred among officers, there were no deaths among them from this cause.

The above abstract will give some idea of the rate of prevalence of and mortality from this form of disease among our white troops in India, but there is reason to believe the average here given is considerably less than what occurs in the majority of regiments, while among the individuals attacked a larger proportion fall victims than are thus indicated, for "cases" recorded numerically include admission on various occasions of the same person, and it is from these, not separate individuals affected with dysentery, that the rate of mortality is calculated; the same rate being also adhered to in every other disease.

If then, judging from what thus appears, we bear in mind that a regiment during its service in India may expect to lose more men by this disease than from the dreadful and terrible scourge Cholera, and that the number who fall victims to it are little, if at all, fewer than of those who perish from fever, we then see still more clearly the great extent to which it prevails among and destroys our countrymen there.

During the early part of the residence of the regiment in India, the rate of prevalence of the disease was greater than during the subsequent period. During the time it occupied the crowded and ill-ventilated barracks in the citadel of Lahore, it seemed to prevail in an epidemic form at the time fever of a severe form was, as has been already stated, raging to an unusual degree among the men; this circumstance serving as an additional confirmation of the opinion now entertained by many Medical Officers in India, that dysentery and fever there are dependent upon causes of an allied if not identical nature.

If we compare the rate of mortality with that of attacks, they are found as a rule not to have prevailed simultaneously, the greatest proportion of deaths in the 10th Regiment having on some occasious occurred when the ratio of cases was near its *minimum*. As, however, the annual proportion of deaths from this cause underwent very great variety under the different circumstances in which the corps was situated, a short analysis of these may be interesting to the Indian Medical officer.

The first two occasions of this description occurred at the very commencement of the tour of service of the regiment in India, and while it was stationed at Calcutta and Chinsurah. On the first of these, 17·30 per cent. died of those attacked; on the second, 21·24. The other disease that carried off the greatest number of soldiers having on the former occasion been cholera, and on the latter, that epidemic and fever.

Of the two next such occasions, one occurred in 1844-45, when the proportion of deaths to attacks, was 10·07. In this year, not only did a severe epidemic of cholera happen in the regiment, but it was called upon to go through a campaign ending in a hard-fought battle at Sobraon. And on the second, namely in 1848-9, when the ratio of deaths was 11·32, the men of the regiment were still debilitated from a severe epidemic of fever, which they had undergone the previous season in the hot and ill-ventilated citadel of Lahore, whence in the middle of the rainy season, they were called upon to take the field, and were subsequently much exposed during the protracted siege of Mooltan, and in following the Sikh army towards Goojerat, where it was finally overthrown.

On the fifth occasion, when the mortality was greater than the general average, namely in 1850-1, it amounted to 16·86 of those treated. An epidemic of fever, chiefly of the intermittent type, prevailed to such an extent, that in the three months from September inclusive, the admissions from that cause actually amounted in number to nearly the same as the strength of the regiment; while on the last occasion, when the mortality was considerable, namely in 1854-5, it amounted to 10·52, the regiment being stationed at Meean Meer, near Lahore, and otherwise so healthy that the general mortality was smaller than in any other year of its Indian service.

During each of the years just noted, the average rate of mortality from dysentery, in both its acute and chronic form, was 13·64 per cent. treated; and although on the majority of these occasions the occurrence of other forms of endemic disease in unusual numbers, indicated that mephitic influences affected the men to a greater extent than in other seasons: or the exposure to which the corps was subjected on field-service was such, as, by lowering the general tone of the system, readily to account for some increase in the severity of the disease. Yet neither of these invariably happened, as for instance, on the last occasion noted, when the increased ratio of deaths cannot be accounted for by either of these circumstances.

On the seven occasions when the annual rate of mortality from dysentery was moderate—that is, under 10 per cent.—it is found to have ranged from 4·34 to 9·42, the general average of such years being 7·15. It, moreover, does not appear that when the regiment happened to be at the same station for consecutive years, either the rate of occurrence or of mortality were at all similar during each of these.

It is not found, on comparing the Hospital returns during different years, that any connexion can be clearly established to have existed between the prevalence of dysentery and hepatitis; neither was it found, in the post-mortem examinations, that inflammatory disease of the liver was an invariable, or even a frequent, accompaniment of the former disease, although, in many cases, they existed simultaneously.

When dysentery occurs in a patient debilitated from fever, or suffering from a cachectic habit of body, such as happens in persons affected with spleen-disease, or in those who, by habitually neglecting to use a sufficient quantity of vegetables with their food, thus induce a tendency to scorbutus, its rate of mortality becomes much greater than when the subject is otherwise healthy, and in such instances the type of the disease is found to be the hæmorrhagic.

Where the system of the patient is otherwise unimpaired, and the attack of dysentery only attributable to the ordinary causes of the disease, it is, as a rule, more distinctly inflammatory, attended by more or less pyrexia and abdominal pain, with scanty stools containing a large proportion of clear mucus streaked with blood, and voided with much suffering.

In some persons who have resided long in India, and whose constitutions are in consequence much impaired, even although they may not have suffered from actual organic disease, a very fatal description of dysentery occurs, characterised by frequent evacuations of a very dark or black tenacious mucus having a very fetid odour. The attendant pain and pyrexia are inconsiderable, but the degree of, and rapidity with which debility occurs, are out of proportion to the apparent urgency of the disease; thirst is intense; surface cold and clammy; hiccup and low muttering fever occur, and death; the fatal event being occasioned by sphacelus of the coats of the large intestine.

When the disease in the acute form is imperfectly cured it becomes chronic, and then the symptoms present such a variety in different cases, that it is difficult to classify them, although they are always sufficiently distinct to characterise the malady.

In these instances, in addition to the general symptoms affecting the system, the evacuations vary much in colour and consistence, being seldom the same for two successive days. At one time they are pale and devoid of bile, at another green or black; sometimes streaked with blood, at others containing clots; on one occasion made up of almost natural alvine matter, preceded or followed by a quantity of mucus, either colourless or streaked with blood, and at another, clay-coloured, frothy, and offensive, as if in a state of fermentation.

Of the different forms of the acute variety, the hæmorrhagic, cachectic, or malarious, is chiefly met with in Lower Bengal, the inflammatory in the drier climate of the upper provinces, and the gangrenous or senile among the particular class to whom it is peculiar, whenever unusually severe duty or exposure produce their exhausting influences.

The various forms of the chronic variety do not seem to have been influenced by locality, each having occurred at the different individual stations occupied by the regiment during its tour of service in India.

My limits preclude me from entering into a history of the treatment adopted in each of these; but, from what has been said, it must, I think, be clear that no one mode of treatment can be employed with equal success in all, and that our reme-

dies must be administered with reference to the particular train of symptoms under which the patient labours, his state and habit of body, as well as the endemic and other influences to which the malady owes its origin.

In concluding this paper, it may be observed that the series of statistics now given have not been prepared with a view to support any preconceived opinions nor to prove the supposed success of any one mode of treatment. They are merely intended to represent the extent to which a large body of soldiers, their officers and families, suffer from certain diseases in India; such remarks as have been interspersed regarding the occurrence and treatment of some of these having reference only to what has been observed in the hospital of the regiment under my charge, and not to the published statements of other Medical Practitioners.

September, 1856.

THE USE OF THE ECRASEUR.

By GEORGE H. B. MACLEOD, M.D., M.R.C.S. Edin. and Lic. Fac. Phys. and Surg. Glasgow,

Formerly Surgeon to the Civil Hospital at Smyrna and to the General Hospital in Camp before Sebastopol.

As the mode of operation known as the *Ecrasement linéaire* is at present creating considerable interest among the members of the Profession in England, and, as many may desire to test its efficiency, while few have an opportunity either of seeing M. Chassaignac's practice or reading his work, I am induced to give an outline of his mode of procedure in the principal operations in which he employs the *écraseur*, as well as to record the results I have observed in a tolerably extended experience of its use. I am well aware that several Surgeons of the highest eminence have not scrupled to apply very unflattering epithets to this mode of operation; but I cannot but think that this has, in some measure, arisen from the prejudice which exists endemically in the Profession against all novelties, particularly of a mechanical kind, in practice; and, though I am by no means an unreserved admirer of the écraseur, I am yet anxious to contribute my mite to obtain for it a fair trial, so as to determine its exact value in practice. Its inventor, like all inventors, is disposed to ride his hobby to the death, and thereby he has prejudiced many against the instrument altogether; but it is much more consistent with sound practice to determine the cases in which it may be useful, and to use it in these, than to reject it merely because we cannot accomplish with it all that has been proposed. That the "metallic ligature" is not much used by other French Surgeons besides the inventor will not be wondered at by anyone who knows the French School, and is no criterion of its worth.

Mr. Spencer Wells has drawn attention to the construction of the écraseur in the *Medical Times and Gazette* of October 11. Since that period the instrument has undergone various improvements. I agree with Mr. Wells in preferring Charrière's model to Mathieu's and Lüer's, and for the reasons he gives. The improvements I refer to are by Charrière. First of all, he has combined the advantages of a straight and curved instrument at a cost little greater than that of one, by making several extremities screw on to one handle. In this way the necessity of possessing several instruments is obviated. Chains, too, of various calibres are fitted to the instrument, enabling us to employ that size which is best suited for the particular operation to be performed. The chain attached to the curved extremity has also been made with a degree of curve in its links, so that, besides being more easily applied to a tumour in a deep passage, as the vagina or rectum, it adapts itself to the channel of the instrument much more easily than a straight chain can, and is less apt to be broken when being drawn home. The mode of attaching the extremities of the chain is also rendered more simple and satisfactory; and, as traction can, if necessary, be made on both ends at once, the power is much increased. These modifications, though apparently trivial, are of much importance, as it will be seen in the course of the following remarks that curves and chains of different kinds are necessary, and to combine these in one instrument is of considerable moment both as to convenience and cost.

It may be said generally that the chief aim of the écraseur is to supplant the ligature; and that it fulfils all the objects aimed at by the ligature in a more rapid and satisfactory manner constitutes its claims to the attention of the Profession. Its latitude of action, too, it will be seen, is much greater than that of any ligature we possess. A comparison of it with the ligature may be stated thus:—In obviating hæmorrhage it at least stands on an equality with the ligature, as it is found so "hermetically and solidly" to close the vessels before dividing them, by an action on their coats similar to that of the ligature, that, though I have repeatedly seen the most vascular growths removed by it, I have never, except in one solitary case, seen a drop of hæmorrhage. As to the speed of action, it is greatly preferable to the ligature, which has to ulcerate its way through a tumour by a process slow and tedious enough, its very slowness being essential to its success. Further, the ligature requires, in general, tightening, causes great pain and irritation, and leaves a large suppurating surface. The écraseur, on the contrary, so compresses the parts, that the resulting raw surface is of very limited dimensions. It enables us to administer chloroform during the whole proceeding, and thus to obviate pain; and, finally, it puts in our power an amount of force unknown in any ligature we possess. In the case of nervous persons or young children, the speed with which it acts, in comparison with the ligature, holds out many advantages. In a word, it in a great measure combines the benefits of the knife and the ligature. In its results, too, the écraseur contrasts advantageously with the ligature. Without claiming for it the advantages of causing greatly less subsequent inflammation and suppuration, of never being followed by erysipelas, or hospital gangrene, or tetanus, or purulent absorption, as is so energetically declared by Chassaignac, still I must honestly confess that the disturbance caused by it has been in general very slight, and the disagreeable results few, in the cases I have had an opportunity of observing. The mode in which the vessels are closed may well be considered to form a barrier to purulent absorption.

The essential step necessary in using the écraseur is, obviously, to form a peduncle, if the part to be removed do not already present one. This is accomplished in various ways, according to the nature of the part. If, as in tumours on the surface, the part to be removed is flat, the best mode of procedure is to raise it up, if possible, from the subjacent tissues, and so to draw it out that several long curved needles can be passed in different directions across and under its base. A ligature is then tied behind these, and a neck thus formed for the chain. This method is preferable to transfixing the base of the tumour with a double thread, and pedunculating each lateral half. The great point is to get well below the base of the tumour.

Again, if the mass be very large, or if it be so bound to the underlying tissues as that it cannot be raised up, or if it extend into a canal, as into the rectum, then the chain is first carried under the part in one of its diameters, and made to split it in two to its utmost depth, when each lateral part is treated as separate tumours, needles passed under it, a peduncle formed by means of a ligature, and a chain made to surround each. In a word, a peduncle is to be formed in the sound parts, beyond the disease on which the chain of the instrument can be made to operate. The ligature employed should be a hard compact one, as it is least apt to get entangled in the chain, and as few turns as possible of it should be used. When the chain is firmly in place, it may be as well to cut away the thread, to obviate all fear of inconvenience.

As the skin presents by far the greatest resistance—a resistance which, at times, is too much for the chain to overcome, its division by the knife, on the line occupied by the chain, will often be advantageous. As this incision will be but superficial, no fear of hæmorrhage need be entertained. The skin may at other times be reflected from the sides of the tumour, which will serve the double end of saving integument, when such is desirable, and enabling the chain to get better below the base. Oiling the chain previous to use makes a considerable difference in its facility of action.

One word as to the mode of passing the chain through and beneath a part. A long and very curved trochar and canula, of a calibre greater than the chain, is made to pass below the part to be split. The trochar being withdrawn, a small elastic bougie, having the chain attached to it, is made to traverse the canula, which is then removed. In this way the chain is conveyed across and under the part. If the base of the tumour be so narrow and deep that a trochar could not

traverse it without including much of the sound tissues on either side, then one trochar and canula of large dimensions is introduced from one side, and a lesser from the other, in such a way that the point of the smaller may become enclosed in the larger, and thus a canal of any acuteness may be formed for the passage of the chain.

In the use of the écraseur, it is essential to proceed with slowness and great gentleness. The holding of the instrument firmly, so that it will not shake much during use is a matter of much moment to the avoidance of hæmorrhage. Though in many operations it will be sufficient to allow half or even a quarter of a minute to elapse between each movement, yet to avoid all fear of hæmorrhage in the case of very vascular growths, it is well to give a minute to each link. This apparent slowness, and the absence of that "dash" so much coveted in the surgery of this country, and which this slowness prevents, is one reason why I believe the écraseur will not make so much way as it otherwise might in England.

Let me glance at the mode of using the écraseur in particular operations.

The great vascularity of the tongue, and the difficulty of suppressing bleeding from it when it is extirpated, presented an obvious case for the écraseur, and certainly in such instances it possesses several advantages over the ligature, which is the only mode of operation which, in such cases, can be said to compete with it. While the ligature takes days, the écraseur accomplishes the end in a few minutes. It needs no re-application; it does not cause the presence in the mouth of a putrid mass for days, which, notwithstanding every precaution, will continually mix its products of decomposition with the food. It enables us to give chloroform, and thus obviate that intolerable pain which accompanies the ligature, and which is so severe as to have caused some to premise the section of the nerve.

If the whole organ is to be excised, two instruments are required. The chain of one is introduced into the mouth by means of a needle passed through an incision below the chin in the same way as Cloquet applies ligatures for accomplishing the same end. The root of the tongue is thus encircled, and cut from above downwards. The second chain introduced by the mouth is laid in the incision made by the first across the base, and is made to divide all the attachments of the organ from behind forward. Half an hour is sufficient to accomplish this operation. Half of the tongue may be removed by passing two chains through the tongue at the angle of union of the diseased with the healthy parts, and making one chain sever the parts from behind forwards, while the second cuts its way out at right angles to the first. A smaller part may be pedunculated by passing a couple of needles through the tissues behind it, tying a ligature round so as to form a neck, and applying the chain. A small chain and the curved instrument answer best for these operations. The case referred to by Mr. Wells as having been followed by hæmorrhage, I saw, with him, and am convinced, the result arose from the cause given, viz., the sudden jerk of the patient's head. If chloroform had been used this could not have occurred. I have reason to think that the attendant exaggerated the frequency of subsequent bleeding in these cases. The result in the case above referred to was ultimately most satisfactory.

Castration can be accomplished by the écraseur in two ways. The diseased gland may be drawn out from its fellow; a ligature applied above it, so as to constrict the tissues, and by means of the chain the whole removed *en masse*. Or, if the part is voluminous, two chains are passed through a canula behind the cord and vessels at the point of section, and while one is made to divide the cord, vessels, and skin transversely, the other performs the perpendicular section by which the testicle is divided from its fellow. The loss of integument is apparently an objection to this procedure, but the results on this head were ultimately very satisfactory in the cases I have had the means of observing. There was not a drop of hæmorrhage, and I did not learn that any of the subsequent nervous symptoms which follow the use of the knife showed themselves, notwithstanding that we might naturally suppose them more apt to follow. In this operation we must, on the whole, prefer the knife, from its greater rapidity, and the fact that, if properly used, none of those results against which the écraseur is supposed to provide, need be feared. If the écraseur be employed, a very long chain, and one of some strength is required to perform the vertical section, and if desired, the skin may be reflected to any desired extent before its application.

I have seen circumcision performed on several occasions by means of the écraseur, but cannot see the object of its employment in such cases, as the knife accomplishes the object much better and more expeditiously. The hæmorrhage, in no case of this sort, is an object worth taking so much pains to avoid. It is easily performed by separating the prepuce from the gland, either by drawing it forwards, and transfixing it with a double thread, whereby to form a peduncle, or, if practicable, introducing within the orifice a pair of forceps, between whose points and the glans the thread, and, finally, the chain, is placed. Adhesions between the prepuce and glans will prevent the use of the écraseur, and the laxness of the tissues make them very apt to get drawn into the canal of the instrument when the chain works home.

Amputation of the penis is readily accomplished by means of the "metallic ligature." An elastic catheter being introduced into the canal, a needle is made to transfix both, a thread is tied behind the needle, and the chain made to divide the whole. The presence of the catheter prevents that obliteration of the canal which might result from the strong constriction exercised by the chain, while the integuments and mucous membrane lining the passage are so approximated by the action of the instrument, that hardly any wound results. Thus, then, there is no hæmorrhage; the vessels are so closed that purulent absorption is obviated, and the wound may be said to be healed by the action which caused it. The difficulty of seizing a vessel in the stump of an amputated penis is well known to be, at times, very considerable, and this difficulty does not exist in the operation by the écraseur.

The radical cure of varicocele is performed by Chassaignac as follows. The cord and veins being carefully separated, and the former drawn towards the middle line, three needles are made to transfix the parts between the cord and vessels, each needle being at a little distance from the other, and in a line with the axis of the vessels. Care must be taken that the needle lowest down does not transfix the tunica vaginalis. A ligature is placed firmly round the needle nearest the ring, so as to arrest the blood in the veins, and another ligature is twisted round behind the needles, so as to include them all, and form a peduncle. Thus far the patient should be kept in the erect posture, so as to render the vessels full; he is now made to lie down, and chloroform being administered, the chain is applied behind the needles, and made to remove the knuckle included in the ligature. About half an inch of the veins is thus removed, and the resulting wound is brought together by suture. This operation takes from fifteen to twenty minutes. The rapidity and certainty of the result are the only advantages which this operation may be said to possess over the ordinary ones, while the extent of the wound is a disadvantage. I have not seen either hæmorrhage, or erysipelas, or swelled testicle, nor yet troublesome erections, follow this operation when performed by the écraseur.

The removal of piles is performed with wonderful facility by the écraseur. The tumour is seized by a vulsellum, and drawn out, when, if small, a ligature is simply thrown round its base, and the chain applied; or, if larger, a double thread is carried through its base, and tied so as to constrict it in two halves; or a needle may be left transfixing the base, and a ligature applied behind it. In many cases the points of the fingers will be sufficient to constrict the neck. Half a minute at least should be allowed between each movement, and ten or twelve consumed in the removal. When the anus is entirely surrounded by vascular piles, Chassaignac removes the whole at one grasp, by introducing a pair of his diverging forceps within the orifice, drawing it well out, and applying a ligature, so as to pedunculate the part, and then using the chain. A bougie must in this case be introduced within twenty-four hours, and that with great gentleness, to prevent tearing, so as to ensure the patency of the gut, which is apt to be obliterated by the strong compression of the chain. The bowels should be kept quiet by opium for twenty-four hours. I have never seen any hæmorrhage occur in the pretty numerous cases in which I have seen the écraseur employed; and I have seen a woman advanced in pregnancy thus with perfect safety relieved from large hæmorrhoidal growths. The slowness and extreme pain and irritation, which are inseparable from the use of both the ligature and caustic, contrast disadvantageously with the operation with the écraseur, and the subsequent irritation of the bladder also appears much less when the chain is used. The very unfavourable state of the patient, the rapidity of the operation,

and the bowels not being kept quiet afterwards, appear to me the causes of the fatal result reported in Liverpool. The bowels, in general, act with very little irritation, in thirty-six hours. In over a hundred cases, many of them of great severity, operated on in Paris, only one fatal result has followed, and in that instance from the breaking of the chain, the essential feature in the operation, as preventing purulent absorption—the cause of death—was wanting, viz., the closure of the vessels before their division. By means of the écraseur strangulated piles can be at once removed, and Chassaignac does not find a state of inflammation any counter-indication. Several patients operated on at the Lariboisière have returned to their work in three days; and in one case in which I saw an enormous hæmorrhoidal tumour removed, no trace even of its site could be discovered a week after.

I have never seen the écraseur used in prolapsus of the rectum.

I have seen the lower part of the rectum removed for malignant disease twice, and in neither case was there any hæmorrhage. It was thus performed:—A long and much-curved trochar and canula was made to pass from the perinæum, at a point anterior to the anus and external to the disease, up beyond the parts implicated in the gut, and outwards towards the coccyx posterior to the diseased tissues. The trochar being then withdrawn the chain was passed along the canula and made to split the diseased mass in two after the tube was withdrawn. Long needles were then made to transfix the base of each lateral half, a ligature tied beyond them, and by means of two écraseurs worked simultaneously, both halves were removed at once. When we weigh the difficulties attending all operations of this kind, the great vascularity of the morbid parts, and the difficulty of commanding hæmorrhage when it does occur, we must think favourably of the écraseur in such operations if they are to be performed at all. In three cases of extensive disease in which I have known the écraseur employed, one died of peritonitis, one has been well for eighteen months, and the third has also completely recovered.

For the removal of polypi of the uterus or rectum the écraseur answers well. The curved instrument and chain suits best. A very small chain, perhaps a wire, employed in the same way, will be found most convenient. The chain may either be introduced projecting in the form of a loop from the end of the instrument, or carried round the tumour before being attached. The inflammation and pain which follow the use of the ligature in these cases, and the presence for days of a strangulated and dead mass in the cavity are all avoided by the écraseur, while the hæmorrhage, so troublesome, and even, at times, fatal, which may result from excision, is obviated. The method mentioned by Mr. Wells at the Medico-Chirurgical Society, of tying the base of the polypus before excision, is, perhaps, better than even the écraseur. The weak state to which many patients are reduced before operation makes the avoidance of hæmorrhage very desirable.

I have not seen the os uteri excised by the écraseur, but having lately seen the operation done by scissors, I can appreciate its performance without hæmorrhage. There was one patient at the Lariboisière who had been successfully operated on by the chain two and a half years before.

Vesicular, erectile, and fungous tumours on the surface, on the labia and neighbourhood of the rectum, nævi, &c., are easily removed by the metallic ligature. The great point to be attended to is to raise them well up from the underlying structures to pass needles clear of them and under their base, to isolate them by a ligature, and to work the chain very slowly. The integument may be reflected from their side, both to save it and allow the chain to get well below them. Their extent, too, is thus better defined. The écraseur is not adapted for the removal of the mammæ. Hæmorrhage can be here easily commanded, and when the skin is reflected, the operation is nearly accomplished.

It seems absurd to lay open fistula in ano by the chain, but in those cases in which the external orifice is at a great distance from the anus, and we wish the track to heal by granulation, I have seen it advantageously employed.

I have seen the chain used for the destruction of the intestinal valve in false anus, and its speedy result, together with the absence of any gangrenous action, which is so difficult to limit, and which attends Dupuytren's forceps, gives the écraseur certain advantages. An elastic tube is introduced through the parts some days before in such cases, so as to make a passage for the chain.

In concluding these detached remarks, I would add that, whatever opinion may be formed of the écraseur, the absence of hæmorrhage, which attends its use, is a fact which cannot be overlooked, and one which we may turn to good account. We may not in every case have the same fear of blood, expressed by M. Chassaignac; yet, it is very true that, independently of the harm its loss may cause in young children and weak persons, the power of avoiding it, and the incidental "cutting," which is the chief fear of a nervous patient, will often enable us to persuade persons to submit to necessary operations, who, if otherwise prevailed upon, might be seriously prejudiced by the mental alarm. I am, as much as any one, opposed to all "unnecessary complications" in Surgery, and particularly to any tendency to that mechanical Surgery so rampant across the Channel: but, though the boast of English Surgery is that it accomplishes all operative interference with the forceps and scalpel, yet we may, in striving for simplicity, throw away an obvious advantage. To propose the performance of lithotomy or amputation with the écraseur is simply absurd; but I am convinced that, if restricted to its own sphere, and employed for those purposes to which it may legitimately be applied, the écraseur is a most useful addition to our armamentarium. For many purposes, I know of no means which can be thought to equal it, except the galvanic wire, which I had the pleasure of seeing in the hands of Professor Middledorpf, of Breslau, adapted to the uses of surgery in such a way that, if it can be so brought into general use, it must supersede, in most cases, every other contrivance. That the écraseur will ever supplant the knife in most of the cases for which it has been proposed, I do not believe, but that it may in some I sincerely hope.

West Nile-street, Glasgow.

CASE OF COMPOUND DEPRESSED FRACTURE OF THE SKULL.

TREPHINING—RECOVERY.

By WILLIAM DALE, Esq., M.R.C.S.

George Baldwin, aged 20, a tanner, received a fracture of the skull while at his work on August 25th. He was assisting another workman at a windlass, when, by some mismanagement, it struck his forehead. The blow did not knock him down, and after the accident he was able to walk, between two men, to my surgery, a distance of 150 or 200 yards. On examination I found a fracture just beneath the eminence of the frontal bone, at the right side; which was "compound, comminuted, and depressed," and the movements of the brain could be plainly seen. Perceiving the case to be a serious one, I sent him home in a fly at once, and gave directions for him to be put gently and quietly to bed. This was a little past eleven o'clock in the forenoon. About one o'clock Mr. Square kindly met me in consultation, and we speedily agreed that to remove a circular piece of bone, and take out the loose pieces at the fracture, was the right treatment. At the time the patient, who was perfectly conscious, would not submit to any "cutting;" but, during the afternoon, he consented to let us do anything we considered necessary in the case. At seven o'clock in the evening, assisted by Mr. Square, and in the presence of his partner, Mr. Rendle, jun., and their pupils, I used the trephine, placing the centrepin on the sound bone, immediately above the fracture, having previously enlarged the wound, to make room for the operation. After the removal of the circular piece of bone, we found at least half an ounce of fluid blood between the dura-mater and the skull; the dura-mater separated, to a considerable extent, around the fracture, and three or four splinters of bone projecting against it—the operation revealing an amount of mischief even more serious than we expected to meet with. The loose pieces of bone having been taken away, the wound was brought together by sutures, and cold water dressings applied for a few days, and afterwards resin ointment was used. The patient had four grains of calomel the same night, and beginning next morning, he took 10 grs. ext. coloc. comp. every four hours till the bowels were freely moved. All the medicine afterwards given was sulphate of magnesia with small doses ant. tart., continued for a fortnight. He was confined to bed, and low diet and quietude enjoined.

Sept. 20.—The wound is healed, with the exeeption of a small point over the plaee where the bone was removed, which discharges a small quantity of healthy pus. The patient has not had one untoward symptom to this hour. Better diet is allowed, and regimen is altogether less strict, as he is permitted to walk about.

29th.—The patient has still no eomplaint to make, and feeling as though nothing had happened to him, he has commenced work again this day.

One or two points of interest are presented by this case; for although there was so much mischief as has been stated above, the man remained perfectly conscious and collected; and, if it be said, Why then trephine? the writer thinks the answer is furnished by the general and dismal history of such eases when left to themselves, viz., "to prevent, in the first instance, inflammation and its dangers; and, afterwards, abscess, which would have rendered the operation imperative under far less favourable eireumstanees." And again, considering the amount of injury that had been sustained (as shown by the detaehed dura-mater, extravasated blood, ete.), it is very remarkable that the man has not had a single bad symptom since the aeident occurred.

Plymouth, Devon, Sept. 30, 1856.

LONDON AND PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

TABULAR STATEMENT OF SEVENTY-EIGHT CASES OF SURGICAL ANEURISM.

ANALYSIS OF THE SERIES AND COMMENTS.

We have, in the table given last week, 78 cases of aneurism, or pulsating tumours, involving large vessels treated under various plans, with the result of 57 perfeet reeoveries, 2, the disease remaining unrelieved, and 19 deaths. These relative numbers, when we consider the importance of the vessel involved in a considerable proportion of the eases, must be considered highly satisfaetory. Of the fatal eases, 1 was after ligature of the abdominal aorta, 3 after that of the eommon carotid, 2 of the subclavian, 2 of the external iliac, and 10 of the superficial femoral. In 1 case death followed amputation of the thigh, eonsequent on the aneurism having beeome diffused, no ligature having been applied. All the cases, 5 in number, in whieh either the aorta (1), the eommon earotid (3), or the subelavian (2), were tied, ended in death. Of those in whieh the external iliac was tied, 3 recovered, and 2 died. Of those of ligature of superfieial femoral 23 reeovered, and 10 died. All those in whieh either the brachial or the ulnar were tied reeovered. These proportions are expressed in the following table:—

LIGATURE CASES.	Number.	Recovered	Died.
Of abdominal aorta	1	—	1
Of common carotid	2	—	2
Of subclavian	2	—	2
Of external iliac	5	3	2
Of femoral—			
No previous trial of compression	9	6	3
After failure of compression	22	16	6
In Hunter's canal for pulsating tumour in tibia	1	—	1
Tumour laid open and the bleeding vessels secured	1	1	—
Total	43	26	17

Of the eauses of death, we have in the ease of ligature of the aorta, *the collapse consequent on the operation;* in 1 of the 2 cases of ligature of the subelavian, *constitutional irritation*, ete., and in the other, *secondary hæmorrhage;* in 1 of those of the common carotid, *paralysis and nervous shock*, and in the other two *secondary hæmorrhages;* in 1 of those of the external iliae, *diarrhœa and exhaustion*, and in the other, *pleurisy*, *&c.* Of the 10 eases ending fatally after ligature of the superfieial femoral, in 5 the death was from *gangrene*, in 1 of them *secondary hæmorrhage* having also oeeurred; in 2 it was from *pyæmia;* in 1 from *constitutional disturbance following implieation of the knee-joint;* in 1 from *amputation for gangrene;* and in 1 it was sudden and unexpeeted from *disease of the heart.*

This enumeration need not detain us longer than just to remark upon the rarity of seeondary hæmorrhage as a cause of death after ligature of the superficial femoral or external iliac, and its comparative frequeney after that of the subclavian and carotid. As the whole 5 subclavian and carotid cases were fairly favourable ones for operation, and yet all ended fatally, their result must be held to point most definitely to the necessity for endeavouring to discover some other method of treatment, whieh, even if tedious, troublesome, and uncertain, should be exempt from so great a risk to life. Whether we regard Mr. Fergusson's ease, in whieh a subelavian aneurism was eured without operation (Case No. 35), as one exemplifying the benefits of compression or of manipulation, or as one of aeeidental and spontaneous eure, its result is alike important and instructive.

Passing now to the speeial consideration of Compression treatment, and its advantages, we must first separate from the series those cases in whieh, for various reasons, it was not tried.

COMPRESSION TREATMENT WAS NOT TRIED

in 24 cases. Of these, 1 was an abdominal aneurism (71), 3 were of the earotid or its braneh es (38, 45, and 73), 2 were of the subelavian, and 4 of the femoral so high up as to necessitate ligature of the external iliac. To these whieh belong to the elass usually deemed, from anatomical position, not susceptible of compression treatment, we might add 3 more, in 2 of which (*Cases* 7 and 78) the aneurism was of the femoral so high up, that although in eaeh a very brief trial of it was made, yet it was desisted from of necessity, in eonsequenee of there not being room for the pad, and in the third (*Case* 74), there not being room for the compressing pad, the tumour was laid open and the bleeding vessels tied in the wound. Here, then, we have 13 eases unsuitable from position. Of the remaining 13 eases, one (*Case* 59) was of the ulnar, traumatic, and already diffused, one (*Case* 33) of the radial under similar eireumstanees, and a third (*Case* 68) of the braehial of like nature. In these 3 the operators preferred to tie the injured vessel above and below the wound, to open the eyst, and to turn out the coagula, treating the eases, indeed, as those of wounded arteries. In a fourth ease (70) the disease was a pulsating tumour of doubtful nature in the head of the tibia, and the sudden eutting off of the supply of blood by ligature of the femoral in Hunter's eanal was preferred by the Surgeon (Mr. Lawrence) to any attempt at eure by eompression. In the 9 eases which we have now left, the aneurism was either popliteal or of the femoral so low down as to have easily admitted of eompression being resorted to. In 3 of these (4, 39, 51) the tumour was diffused at the time of the patient's admission, and there was no time for delay in treatment. In 2 (61 and 44), although not diffused, it was thought to be too large to be suitable for compression treatment, and was increasing too fast to admit of delay. In one the man was in poor health and the subjeet of eonstitutional syphilis, eireumstanees whieh induced the Surgeon to prefer ligature to eompression. In 3 eases (65, 53, and 57) there was no motive for not trying eompression as far as the faets in our possession show. Of these 3 suitable for eompression, but in which it was not tried, 1 ended fatally after ligature, and 2 recovered.

We now pass to the eonsideration of the cases in whieh

COMPRESSION TREATMENT WAS TRIED.

Of these, 54 in number, the subjoined tabular statement exhibits the gross results And it must here be borne in mind that these results, whieh eannot, we think, but be eonsidered as triumphantly in favour of the new plan, have been obtained by Surgeons, many of whom had little or no previous experience of its details. In this respeet lithotrity and the compression plan stand in like condition. They are both of them more difficult in the sueeessful earrying out than the operations they are intended to supersede, and require more of speeial experienee and of attention to detail on the part of the Surgeon. The vast difference in result between lithotrity in private, and lithotrity in hospitals is generally aeknowledged, and it is probably to be explained in eonsiderable degree by the eircumstanee that in hospitals the patients come almost by ehance under the eare of different Surgeons, while in private it is a sort of specialty, and they come usually into the hands of those who have had large experience. We mean, of course, in saying this, not the slightest

disrespect to the attainments and qualifications of Hospital Surgeons in general, but simply to assert that the old rule that "practice makes perfect" applies with equal force to the management of rare and difficult surgical cases as it does to the other affairs of life. Thus, then, we may fairly argue that, had the whole of these cases been under the care of one or two Surgeons, very different results would have been obtained. And, further, we may fairly expect that in future, when compression treatment shall come to be more generally understood in all the details of its management than it is at present, a much larger proportion of successful cases will be produced.

COMPRESSION CASES.	Number.	Succeeded	Failed.
Subclavian Aneurism (manipulation treatment)	1	1	—
Femoral	5	—	5
Popliteal	46	24	22
Anterior tibial	1	1	—
Radial	1	—	1
Posterior tibial	1	—	1
Total	55	26	29

If we except, as we may fairly do, those cases from this number in which the compression treatment was only tried for very short periods indeed, we have a total of 51 cases and 26 successes, or rather more than half. Of the successful cases, all, excepting two, were popliteal aneurisms. Now, as we shall presently have to show that the cases in which compression did not effect a cure derived advantage rather than injury from its trial, we may thus state that the 26 successful cases were cured by means involving no risk whatever. In other words, the statistics of death from aneurism are the same as they would have been had these 26 patients never suffered from the disease at all; and the cases are to be counted as clear gain on the credit side of the Surgical account. A few words may be said on the following points:—

The average period of treatment.—In the 26 successful cases the time occupied in treatment varied from sixty hours to eight months, its average being two weeks and five days. It must be borne in mind that in but few cases comparatively was the attempt made to secure complete arrest of the circulation through the tumour. In most it was only retarded, and in many the patient was allowed to lay aside the instrument at night. In some of the longest cases the constitutional suffering on the part of the patient was little or nothing. Amongst the means by which we have little doubt but that this average might be greatly shortened, and to which as yet but little attention has been given, are, 1. Local support to the tumour, and 2nd. The diet of the patient. It is evident that by bringing the walls of the sac together, or nearly so, by local compression, its fibrinous obliteration would be likely to be assisted, that it is surprising so little has hitherto been attempted in this way. An air-pad, bandaged upon the tumour empty, and afterwards inflated, would offer the most convenient means. In several cases of failure, in which the tumour enlarged, the increase in size seemed to be merely from want of contractile power in the aneurismal walls. Apart from its benefit in relieving this condition, local support would also be very likely to disturb somewhat the coagula already formed, and thus afford projections for new fibrin to be deposited upon

Instrument to be used.—We have, of course, in the different Hospitals witnessed the employment of a great variety of compressing instruments. On the whole the result of experience has seemed to us to be in favour of those of simple construction: those, namely, which consist of a modification of the clamp tourniquet. In some cases, Carte's apparatus, with elastic springs, has been found to answer; but in others it has been discarded after fair trial. A great point is to have an instrument by which the artery may be compressed as it crosses the brim of the pelvis, for here it is more free from the vein than at any other part of its course, and this is, perhaps, best attained by the cylinder weight described and figured in a former report.

CASES IN WHICH COMPRESSION FAILED.

Of these we have 29 cases, 3 of which, as already observed, ought, however, to be excepted on account of the trial having not been persevered with. In two or three others also the trial was very short. In one case the patient being the subject of these aneurisms was discharged as beyond hope from treatment. In one gangrene of the leg threatened, and amputation was resorted to. In 3, the tumour threatening to burst, amputation was performed. In one ligature of the external iliac, and in one that of the brachial was performed. In 22 ligature of the superficial femoral was performed. Of the whole 29, 7 ended in death, 3 recovered after amputation, 2 were discharged in *statu quo*, and 17 recovered after ligature of the vessel involved.

The statement made above, that, even where it failed to cure, the compression treatment did no injury, is not to be understood as applicable to individual cases, but only to the average result. It is based on the fact that, whilst of 27 of that class (all of the lower extremity) submitted to ulterior treatment, 20 recovered, or nearly 3 in 4; out of 10 cases of ligature of the femoral, no previous treatment having been adopted, only 6 recovered, or rather more than 2 in 4. If it be objected that the mortality of the latter was above the average, we may refer to the collection of cases made by Norris, who, in a series of 188 primary ligatures of the femoral, found that one in every 4 died. Now, when we consider that, in not a few of those cases in which ligature was performed after failure of compression, the latter was desisted from, either because the tumour had very greatly increased, or there had been great œdema of the limb, or the patient was worn out by want of rest, it is manifest that there must have been compensating circumstances which prevented the mortality from being higher than it was. These cases were in a much less promising state ostensibly at the time of the operation than those in which primary ligature was practised; and yet we find that their mortality was less. The explanation of this is doubtless to be found in the circumstance that the trial of compression, although it might have been hurtful in other respects, had conferred a great benefit in opening up the collateral circulation, and thus preventing the risk of gangrene after ligature. Out of 10 cases of primary ligature of the femoral, three died of gangrene, whilst out of 22 in which ligature followed a trial of compression, only two ended fatally from that cause. It is evident, therefore, that compression has its uses when considered not as a means of cure in itself, but simply as a preparatory measure for the application of a ligature. The fatal nature of gangrene when it does occur, is sufficiently shown by a glance at the following table of amputation cases, in which it will be seen that all the cases severe enough to require amputation ended in death.

AMPUTATION CASES.	Number.	Recovered	Died.
For gangrene after ligature (no compression)	1	—	1
For gangrene after ligature after compression	2	—	2
For gangrene after compression (no ligature)	1	—	1
Tumour threatening to give way after compression; no gangrene; no ligature	3	3	—
Total	7	3	4

INDICATIONS FOR GUIDANCE IN FUTURE CASES.

1. To have two compressors from the first in constant readiness, and use them alternately.
2. To employ the pressure by preference over the brim of the pelvis where the vein and artery lie side by side, and the latter may be compressed without the former.
3. To be very particular in removing all hair from the skin of the part, to dust it well with flour, and use every precaution for preventing excoriation. With this view it may be well, as suggested by Mr. Paget, to harden the skin by the use of a bichloride lotion for a few days before beginning the treatment.
4. To load the patient's blood with fibrine by limiting his diet to solid food as much as possible. This should be attended to before beginning the treatment. He should be purged, allowed to eat freely of meat, but to drink only the least possible quantities. The drink allowed should be diuretic.

5. The aneurismal sac itself should be supported by the pressure of a soft pad or an air-cushion. If solidification be unduly slow, it may even be justifiable to disturb and break up the coagula by forcible manipulation, in the hope of thus affording irregular projections in which the deposit of fibrine would take place.

JONATHAN HUTCHINSON.

HOSPITAL NOTES.

ENUCLEATION OF UTERINE TUMOURS.—There is at present under the care of Dr. Oldham in Guy's Hospital, a very interesting case in which the propriety of attempting the enucleation of a large fibrous tumour of the uterus has been under consideration. The tumour projects into the vagina but also extends upwards nearly as high as the umbilicus. Repeated hæmorrhages have occurred, but the woman is as yet in fair health. In some remarks upon it, Dr. Oldham stated to the students, that although he had seriously thought of it in this instance, yet surgical interference with these tumours in a general way he regarded with much dread. Very few attempts had been made in English practice, and of those in the Paris Hospitals he believed a large majority had proved fatal. At any rate, he thought the rule should be never to meddle excepting when the hæmorrhage was so profuse as to endanger life. He had no faith whatever in the so-called absorption of fibrous tumours, but of this there was no doubt that they not unfrequently became quiescent and ceased to be the source of trouble. Further, they might also be spontaneously cured by sloughing out, an event, however, of great rarity. The patient has derived great benefit from a six weeks' rest in the recumbent position, and we believe that for the present Dr. Oldham intends to defer the operation contemplated.

CASES OF BRONZED SKIN, &c.—There is now in Patience Ward, Guy's Hospital, under the care of Dr. Barlow, a well marked case of bronzing of the skin. The patient is a woman of about 30, and her state of debility resembles that which has been noticed in former cases. A well characterised case which was under care in the same ward terminated fatally a week ago. The friends of the patient being Irish, removed the body and refused a post-mortem, which was only obtained by a Coroner's order so long after death that decomposition had far advanced. The supra-renal capsules were not satisfactorily made out, and were believed to have been completely atrophied. Dr. Peacock, of St. Thomas's, mentioned to us the other day a case in private in which a gentleman had died with all the train of symptoms usually attending bronzed skin, and with a well-marked corresponding condition of integument, but unfortunately no autopsy could be obtained. His symptoms had been of about a year's duration.

EXEISION OF KNEE-JOINT.—Mr. Bowman has a case of exeision of the knee-joint in King's College Hospital which has done remarkably well. Only three weeks have elapsed and the front of the wound is already soundly healed. The limb is perfectly straight, and the discharge which flows from the lateral corners of the incision is fast diminishing. The patient is a pale delicate girl, aged about twelve. She has improved in health ever since the operation.

OPERATION FOR VARICOCELE. — On Saturday last, Mr. Holmes Coote at St. Bartholomew's performed Sir Astley Cooper's now neglected operation, for the relief of varicocele by cutting away a portion of scrotum. Previous to using the knife, the skin had been drawn together by the shotted suture so that the cut edges remained in apposition afterwards. A large portion was removed, the object of course being by the diminution of the scrotal pouch to support and compress the dilated veins.

URETHRAL LITHOTOMY.—Three weeks ago Mr. Ward in the London Hospital performed the modified urethral lithotomy recently known as Allarton's. The patient was a delicate boy of 4 years of age. Two small stones were removed and the case has done well. The prostatic urethra was dilated sufficiently to admit the operator's fore-finger. It is needless to say that the operation was admirably performed. Mr. Ward has hitherto been a staunch advocate for the straight staff and Key's knife, and this is the first instance in which, in public at least, he has deviated from their use. He stated as his reasons for doing so, that the simplicity of the urethral mode seemed to claim for it a trial. He was pleased with it, but did not think that it required at all less skill or regional knowledge than the ordinary operation. He had found no difficulty in thoroughly exploring the bladder with the finger. The greate difficulty of accomplishing this satisfactorily must, however, we fear, be cited as a serious objection to the method. Two cases have recently occurred in the London Hospitals in which operators have left small calculi in the bladder, having in each instance avoided the incision of the prostate.

VESICO-VAGINAL FISTULA.—A case of vesico-vaginal fistula was operated on by Mr. Spencer Wells, in the Samaritan Hospital, about 10 days ago. The fistula was large and very high up, its superior edge being the anterior lip of the os and surface of the cervix uteri. The galvanic cautery had been frequently used unsuccessfully, and two previous operations by other Surgeons had failed. Mr. Wells used the perforated silver button-plate and shotted wires, recommended by Dr. Bozeman, and was much pleased with their ease of application and the good co-aptation secured. Up to the eighth day (our last Report) all the urine passed by the urethra, and the woman was doing perfectly well.

EXPECTED OPERATION.—At St. Bartholomew's, on Saturday next, Mr. Paget has a tumour connected with the lower-jaw to remove. At King's College, on the same day, Mr. Fergusson has an excision of the superior maxilla, and an amputation of the foot. On Monday, at the Metropolitan Free, Mr. Hutchinson has a case of perineal section, and a removal with the écraseur of a large pendulous tumour of the nympha.

We propose in future, from time to time, to make announcement, as above, of the more important operations in prospect at those Hospitals from which the information can be obtained sufficiently long beforehand. Those Hospitals whose operating days are either Wednesday, Thursday, or Friday, must of course generally be omitted.

SALFORD ROYAL HOSPITAL.

EXCISION OF KNEE—AMPUTATION—DEATH.

(Under the care of Mr. THOMAS WINDSOR.)

William Gee, aged 18, pale, thin, and tall, was admitted May 24, 1856.

History.—Two years since last Good Friday the right knee gradually swelled with pain in walking, none when quiet; the skin was of its natural colour; he went into the country, and the knee seemed to get nearly well; after a little time it commenced again, and he went into the Manchester Infirmary, the joint becoming worse and worse; he became a home-patient of the Salford Hospital in March, 1856, and had then cough, with considerable expectoration and night-sweats; by treatment his general health improved, but the knee became more swelled, and excessively painful.

Present state.—Leg considerably flexed on thigh; flexor tendons contracted; knee rounded in form, patella prominent; skin normal, rather tense; in consistency dense, and rather hard, no fluctuation; motions of flexion and extension very slight; some lateral motion; slight crepitation when the joint is moved; the pain is most severe on the inside of the knee, and is much aggravated by the slightest motion or pressure.

No disease of the chest can be detected; there are now no night-sweats, no expectoration, and but little cough; appetite generally pretty good; pulse 96, full; no thirst; bowels regular.

May 29.—Excised the joint, making the H incision; removed about an inch and a-half of the femur with the saw, the surfaces of the tibia and patella with a chisel; two small vessels were ligatured; the wound closed with strips of wet lint, and placed in a frame. The crucial ligaments were almost entirely destroyed; the cartilage separated here and there from the bone; the end of the femur worm-eaten, softened, with enlarged cancelli, and great vascularity; the patella and tibia but slightly affected; the synovial membrane thickened. A drachm of laudanum, with a little brandy, were given to him, and in about half-an-hour he seemed to have pretty well rallied. About three hours after, hæmo-

rrhage to so great an extent took place, that he became almost pulseless; the dressings were opened out, a small artery twisted, and lint wetted with spir. tereb. applied to the end of the femur, from which blood obstinately oozed; ice to be kept constantly round the knee.

11 p.m.—No more hæmorrhage; has vomited once or twice; has slept several hours; leg easy; foot moderately warm.

May 30.—Has had a good deal of nausea through the night; pulse small, weak, 126 per minute; great thirst; says he feels better; no more hæmorrhage.

10½ p.m.—Has vomited many times. ℞ Calom. gr. v. stat. sum. ℞ Tr. opii ʒj. dec. amyli, ʒj. M. Ft. Enema stat. admin.; a warm bottle to be constantly applied to the epigastrium.

31st.—Has slept most of the night; the enema was retained, the calomel vomited; not at all sick during the night; has vomited once this morning. Pulse 120; irrigation of cold water to be used for knee.

8½ p.m.—Pulse 116, smaller, harder; tongue moist, slightly furred; vomits still occasionally; has had a little hiccough, which stopped on the application of a hot plate to the epigastrium; has slept for some hours during the afternoon; no pain in leg; is taking wine, beef-tea, and mist. effervescens; repeat cal. and enema opii.

June 1.—Has slept well; no vomiting, still has a little nausea; bowels not open since the operation; pulse 114; skin warm; tongue dry, furred; no pain in the leg, which is warm, but not swelled. Enem. ol. ric. admin.

2nd.—The enema brought away a small motion; has vomited once; tongue dry; pulse 114; slept well; no appetite, thirsty; throat feels a little sore. Sum. mist. rhæi c. magn. ʒj., ter indies.

3rd.—Bowels freely open; countenance clear, rather pale; pulse 120, full; skin warm; hardly any sickness; leg easy. Stop. mist. rhæi.

5th.—Feels much better; slept pretty well; bowels easy; no vomiting; tongue slightly furred; appetite improving; leg easy; pulse 108.

7th.—Much better; slept well; appetite pretty good; leg easy; a little suppuration begins to appear.

17th.—Tongue red; bowels regular; knee easy; foot a little puffy; back of sacrum becoming rather painful. To have a water pillow.

28th.—Has been going on in all respects well, except that a small sore has formed on the back of the sacrum; calf of leg is a little painful. Dressed the knee for the first time, found the wound filled up with granulations, perfectly healthy in appearance; he has a little power over the leg, being able to raise it about half-an-inch.

July 2.—Starch bandage applied; back rather painful; in other respects going on well; knee quite easy; pulse 108.

11th.—Back better; pulse 120.

16th.—Tongue clean; has a slight cough; bowels regular; pulse 112, small; sweats a little at night; sleeps pretty well; sore rather indolent, granulations large and pale. Sum. ol. jec. asell. ʒss., ter indies; wound to be dressed every second day with sol. zinc. sulph.

August 13.—Since last notice, the pulse has been pretty regularly 114 in the morning, 120 in the evening; the wound has scarcely changed. To have the starch bandage removed, the knee strapped with adhesive plaster.

30th.—Somewhat improved, feels much stronger; wound looks more healthy; knee reduced in size; is taking wine, brandy, etc. freely.

September 3.—A piece of bone (apparently part of internal condyle) projects through the granulations, and appears dead; has been a little troubled with diarrhœa.

October 9.—Since last notice, the piece of dead bone appears to have made no change, but he has become thinner, feels weaker, his cough has somewhat increased; for these reasons, etc., amputation was decided on, though delayed, owing to the lad's wish, till October 11th, when the ordinary circular operation was performed; only about half-an-ounce of blood was lost; dressed with wet lint.

On examination, the ends of the femur and tibia, the internal surface of the patella, were found softened, worm-eaten, vascular, partially covered with fungous granulations; no anchylosis.

Vespere.—Pulse slower, but stronger, than before the operation; has slept a little; has had no sickness; feels warm and comfortable.

13th.—Has had slight delirium this morning; tongue aphthous; pulse 116, small, weak. Sum. quin. dis. gr. ij. 4tis h., etc.

16th.—Almost pulseless; features pale, sunk; has had no shivering since operation; has some difficulty in making water; on examining stump, find the edges ununited, its surface covered with a blackish sanious discharge. Spir. ammon. arom., etc., to be freely used; poultice to stump.

17th.—Gradually sank to-day. No examination allowed.

Remarks.—This operation has been performed so frequently within the last year, that perhaps a definite determination of its value might be deduced, if full particulars of all the cases were known; unfortunately the terminations of some, and fuller accounts of many cases are still wanting; I have heard that some of the cases recorded, which were said at the time of publication to be going on well, have ultimately ended but badly. Now in determining the value of a new operation, it seems to me, that no cases should be more carefully recorded than those of failure; they are more likely to determine the cases in which the operation should not be performed, the methods of operating that should not be employed, the various accidents to be feared and guarded against. It seems to me in regard to the present case, that the most immediate and important points to be considered, are the causes which appeared especially to conduce towards an ultimate failure, and the means by which we may hope to prevent or diminish their action. The effects of the hæmorrhage, which commenced a few hours after the operation, were so severe, as to make me fear the immediate death of the patient; if it had recommenced, I should have performed transfusion; the method of guarding against this accident is obvious,—carefully ligature during the operation every artery however small, and let the case be well watched for some time afterwards.

Bedsores:—Place the patient on a water-cushion immediately; and as soon as possible, by means of the starch bandage or other dressings, enable him to move about.

Long confinement and great discharge from wound, principally depend on the state of the sore, and hence all means promoting its rapid closure will be preventatives.

Large size of wound: hence all incisions cutting across ligamentum patellæ are to be avoided.

In short, before the operation, get your patient into the best condition possible; cut through the tendons, if much retracted—during the operation, avoid cutting through the ligamentum patellæ; tie all arteries—after the operation, let the case be well watched, and placed on a water-bed; let the irrigation of cold water be employed, or the limb be at once placed in a starch bandage.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 149.—Urn Burial.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—In the last number of your Journal are some observations on the cremation of the dead. Palpable as are the advantages connected with the practice, I believe it is useless to attempt its introduction into England.

On the other hand, the nuisances resulting from our present system are so abominable that it is highly desirable that some substitute should be found. Besides, can anything be more barbarous or revolting to our ideas of refinement and to our affections, than the practice of throwing (not to the dogs, but that is as bad) to the worms the lately-cherished body of a mother, a wife, or a child? Surely nothing but custom could have reconciled us to so gross a mode of dealing with our dead.

Cannot the body be allowed to return gradually to its mother-dust, to moulder away, and not to putrefy? Would not this be alike more in unison with refined feeling, and with our sanitary requirements? In short, is it not possible to introduce some modification of the ancient custom of embalming, and can any of your readers suggest the cheapest antiseptic ingredients? I will conclude by quoting the following receipt from the *Literary Gazette*, June 20, 1840, and should like to know of some other and more lasting process:—

"M. Gaunal's mixture for injecting the carotid artery, whereby all the purposes of embalming are attained:—One kilogramme of dry sulphate of alumina, dissolved in half a litre of warm water, and marking 32 degrees of the areometer. About three or four litres of this will inject all the vessels of the body, and will preserve it in summer; in the winter from one to three litres are enough. But to keep away insects, there ought to be added to the above, chlorure of copper, at the rate of 100 grammes of arsenic acid." (A litre measures the 35th part of a bushel).

November 8, 1856. I am, &c. D. H. T.

No. 150.—The Preparation and Therapeutical Employment of Valerianate of Ammonia.

Sir,—It appears, from a French paper, that the valerianate of ammonia has been found very successful in the treatment of some obstinate and inveterate forms of neuralgia. From the known efficacy of the ammoniated tincture of valerian in hysterical cases, it might be conjectured that the pure valerianate of ammonia would prove efficacious in neuralgia, especially that which partakes of the hysterical character. But I cannot find in English works any formula for the preparation of this compound, or any directions as to the dose in which it ought to be employed. Perhaps some of your contributors can help me. I am, &c. Ιατρος.

No. 151.—The Microscopic Characters of Cancer-Cells.

Sir,—As it is no doubt very important to determine the true characters which distinguish malignant from non-malignant growths, I should feel much obliged if some of your numerous Correspondents, who have paid especial regard to microscopical investigations, would point out concisely in your pages the appearances which may be considered as truly indicative of the existence of cancer. I am well aware that the phrase, "true cancer-cell," is very generally employed, but some of the most distinguished modern authorities seem to be undecided as to the exact appearances which ought to be considered as pathognomonic of this terrible disease. By answering this question in your column devoted to Notes and Queries you would much oblige.

A Country Practitioner.

No. 152.—The Bagnio in Long Acre.

Sir,—I have seen in a catalogue of old books, but could not get it, "Haworth's Description of the Duke of York's Bagnio in Long Acre, and of the Mineral Bath and New Spaw thereunto belonging." Mr. Cunningham mentions the Queen's Bagnio in Long Acre. Can any of your readers tell me whether the Duke's and Queen's Bagnio are the same, where the Spa was, what were the characters of the mineral water, and whether any mineral spring now exists in or about Long Acre? I am, &c. Lincoln's-inn.

November 25, 1856.

No. 153.—Dog Latin.

Sir,—We all know what is meant by dog-Latin, but I should like to know the origin of the expression.

Dunkeld, Nov. 25, 1856. I am, &c. Know Nothing.

No. 154.—Fall of Rain in England.

Sir,—I have heard it stated that less rain falls in England now than fell fifty years ago. Various explanations have been given of the circumstance, but I want to know if the statement be true, and where I can find authentic information on the subject. I am, &c. Meteorologist.

Aylesbury, November 20, 1856.

No. 155.—Pathological Sympathy between the two Eyes.

Sir,—Can any of your readers inform me whether it is usual for a traumatic injury of one eye to endanger, by sympathy, the textures of the other? and whether the extirpation of the injured organ, or its puncture, so as to allow of the escape of the humours, would in any way tend to preserve the integrity of the sound eye? I entirely exclude from my question all cases of constitutional disease, and refer only to instances where a local injury has been inflicted upon one eye alone; and I may also add, that I exclude all cases of very recent occurrence, in which active inflammation is going on. Perhaps some of your contributors who have devoted much attention to the diseases of the eyes will favour me with a reply. I am, &c. A Young Surgeon.

No. 156.—O'Byrne the Irish Giant.

Sir,—A writer, G. H. L., in "Fraser's Magazine," for August last, relates, page 147, that Count Boreuolaski lived for some time at Epping Inn with O'Byrne, the Irish giant; and, at page 153, speaks of the skeleton of the Irish giant, O'Byrne, being in the Museum of the College of Surgeons. The man whose skeleton is preserved was named Byrne, and died 1783. The friend of the Count was named O'Brien, and lived many years longer than his rival in height. He died at Epping-place, the name of the inn where he had resided for some years; and his body was conveyed, by his friend and executor, the late proprietor of that inn, to Bristol, where he was buried.

There are people now living in Epping who remember O'Brien. I may mention that his boots, which I have seen, were enormous. One was said to be capable of holding a bushel of horse-beans. I am, &c. M.

No. 157.—Quackology.

Sir,—Talking of Quacks, one of the most impudent of the class I ever read of was Dr. Graham, the inventor of the "Electrical Ether," the "Nervous Etherial Balsams," the "Imperial Pills," the "Liquid Amber, or Preventive Lotion," the "British Pills," and the "Bracing or Restorative Balsam." Dr. Graham assumed to be a graduate of the University of Edinburgh, and made the "Electrical Cure" his point. He opened in Pall-mall the "Temple of Health and of Hymen," in 1781-82, whither people resorted to be healed, and where, "at the electrical altar, or on the Medico-electrical throne, without shock or any kind of uneasiness, into the general system, to the seat of the disease, or only to parts particularly affected, were conveyed the pure, active, balmy, bracing, and restorative effluvia of medicines, simply, or combined with full genial tides of the celestial electric fire or vital light, magnetic effluvium, vivifying and ethereal nitrous air, or any other of those great primary elementary principles, which are the universal pabulum or vital food of animal life, and, indeed, of universal nature!"

This was pretty extensive in its way, but was nothing to the Doctor's private Medical advice to married ladies and gentlemen who are not blessed with children. Here he out-Herod's Herod! He can fan and blow up the smallest spark of our virility, or even the expiring embers of affection, and the vital generative powers in either sex, into a genial and prolific flame . . . . so as to make man and wife sweeter, lovelier, and more desirable in the eyes of each other, the lady (age no matter) speedily becoming a healthy and happy mother!

In the "Temple of Health and Hymen," Dr. Graham gave great allegorical morning concerts; to his name odes, sonnets, and acrostics were written; some absurd, and others infamously wicked.

The reader interested in Quackology will find, in the library of the Medical Society of London, the transactions of this great Quack, who, if the story there given be no exaggeration or satire, was, assuredly, the King of Quackdom in the eighteenth century. I am, &c. B. Cos.

Monument to Dr. Rogan.—Within the last week, a handsome monument has been erected in the Cathedral of the City of Londonderry to the memory of Francis Rogan, Esq., M.D., F.R.C.S.I., late Surgeon to the County Londonderry Infirmary, and for many years an eminent practitioner in the north of Ireland. For more than a quarter of a century, Dr. Rogan held one of the largest (if not the largest) provincial practices in Ireland. He was respected and esteemed by all members of the community for sound judgment, good sense and professional skill; and as a consulting physician and surgeon possessed the unlimited and unreserved confidence of his brethren in the profession. The monument, as the inscription denotes, is a testimonial to departed worth, erected by friends in and out of the profession, and consists of a grey marble slab, eight feet high by three feet six broad, tapering towards the top; on the slab is carved in white marble in relief, a figure of Hygeia, leaning on an urn; underneath which is a slab of white marble bearing the following inscription, "To the memory of Francis Rogan, M.D., F.R.C.S.I., this monument is erected by a number of his friends and admirers, in testimony of their affection and esteem for his social and moral qualities, as well as their admiration of the talents and acquirements which obtained for him a professional eminence rarely equalled. He died on the 13th of August, 1854, aged 68; after a most useful and distinguished career of nearly 40 years." The monument is from the studio of Kirk, Dublin.

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Medical Times & Gazette.

SATURDAY, NOVEMBER 29.

LITERARY AND SCIENTIFIC PIRACY.

Plagiarism and piracy are hard words, but they represent a moral disease which is increasing among us, and which must be cured. It is seen under two forms, the literary and the scientific. Unhappily, typical cases of each form have recently appeared, and it becomes our painful duty to give them such publicity that any recurrence of the disease may be prevented by fear of exposure, higher motives having proved so ineffectual.

This week we shall confine ourselves to the exposure of literary piracy, or plagiarism, a very glaring example of which is afforded us by Dr. Lees, of Dublin, a colleague of the high-minded lofty Stokes, a successor of the acute original Graves. Dr. Brinton published two Essays on Ulcer of the Stomach, in the 33rd and 35th numbers of the "British and Foreign Medico-Chirurgical Review." Dr. Lees published some Lectures on Diseases of the Stomach, in the *Dublin Hospital Gazette* of this year. How far he has ventured to appropriate, not only the result of Dr. Brinton's labours, but his very words, may be judged from the following parallel passages.

Dr. Brinton.	Dr. Lees.
In size the ulcer is rarely much smaller than a fourpenny piece, or larger than a crown-piece.—*Review*, No. XXXIII., page 162.	Seldom smaller than a fourpence or larger than a crown-piece. —*Dublin Hospital Gazette*, Vol. III., p. 85.
The ulcer gradually extends in the direction of depth as well as of surface. The whole depth of the ulcer forms a cone, the base of which is at the free internal surface of the stomach, while its apex points towards the peritonæum.—Page 165.	This ulcer spreads chiefly on the surface, but at the same time extends in depth. . . The ulcer thus represents a cone, the base formed by the free internal surface of the stomach, while its apex is at the peritonæum.—*Loc. cit.*
The shape of the ulcer is usually circular or slightly oval. It is often oblong, its direction being either parallel or transverse to the axis of the stomach, and in rare instances it has formed a zone around the pyloric valve, or the neighbouring extremity of the organ. But some of these irregular shapes are evidently due to the fusion of two or more ulcers into one, by the progressive enlargement of their adjacent margins. —Page 163.	The shape of the ulcer is usually circular or slightly oval, but may be oblong, its direction being either parallel or transverse to the axis of the stomach, and in rare instances it has formed a zone around the pyloric valve, or the neighbouring extremity of the organ. But some of these irregular shapes are evidently due to the fusion of two or more ulcers into one, by the progressive enlargement of their adjacent margins.
The appearances of the tissues in and around the ulcer are subject to just as much variety as its size and shape. In some instances there is little or no evidence of inflammation in the neighbourhood of the lesion, which consists of a mere removal of the mucous membrane over a circular space, that forms a shallow but level pit, with a sharp, smooth, vertical edge, as though it had been punched out. In other cases the swelling and induration around the ulcer convert the mucous membrane for the distance of an inch or more, into a thick brawny mass, which has been sometimes mistaken for cancer. Rarely, however, will a careful examination of the ulcer leave us in any doubt as to its nature. The exudation which causes this increase of thickness is almost exclusively confined to the mucous membrane, and to the areolar tissue immediately beneath it, and consists of fibres, in which it is usually very difficult to find even moderate quantity of the cell-growth from which such fibres appear to be developed. Hence the new substance has neither the structure nor the situation of the cancerous deposit. The mucous membrane itself, however thickened, remains in what is essentially a healthy state. Indeed, in many such instances, it is little more than hypertrophied.—Page 163.	There is some difference in the appearance of the tissues in and around these ulcers. . . No evidence of inflammation, but the mucous membrane was removed over a circular or oval space with a sharp smooth vertical edge, as though it had been punched out. In other cases, however, there has been thickness and induration around the ulcer, and the mucous membrane has appeared converted for some distance into a thick brawny mass, which has been sometimes mistaken for cancer. But a careful examination of the part will generally satisfy us as to its real nature. The exudation which causes this increase of thickness is almost exclusively confined to the mucous membrane and to the areolar tissue immediately beneath it, and consists of fibres, in which it is usually very difficult to find even moderate quantities of the cell-growth from which such fibres appear to be developed. Hence the new substance has neither the structure nor the situation of the cancerous deposit. The mucous membrane itself however thickened, is merely hypertrophied, and is found on microscopic examination to be healthy in structure.—*Loc. cit.*
But this event (perforation) is in most instances prevented or deferred by the occurrence of adhesion—uniting this organ to some neighbouring surface. The situation of the ulcer seems not only to regulate the occurrence of adhesion, but also to affect its structure and thus to influence its efficiency as a means of protection against perforation. —Page 165.	In most cases, however, the opening is fortunately prevented from communicating with the general cavity of the peritonæum by adhesions uniting it to some of the adjacent viscera; but the efficiency of this adhesion as a means of protection against perforation varies with its situation and also with its structure.—Page 86.
Though the posterior surface of the stomach is the part most frequently the seat of ulcer, yet (that it is one of those least liable to perforation, while conversely) the anterior surface (though much more rarely occupied by the ulcer) is yet one of the most frequent sites of perforation.—Page 172.	Though the posterior surface of the stomach is the part most frequently its seat, yet the interior surface is the most frequent site of perforation. . . .—Page 86.
All the peculiarities of the symptoms and appearances seen in this group of ulcers refer the above tendency (to perforation) to the absence of that inflammatory reaction by which its destructive advance is often checked, and its worst effects warded off. — No. XXXV., page 172.	It (the perforating ulcer in young females) is often characterised by a peculiar want of inflammatory reaction. . . so that it is thus deprived of the usual protection against perforation.—Page 132.
The third and most serious class of hæmorrhages is one in	These hæmorrhages are caused by the ulcer opening

which the bleeding comes from a large artery of the stomach. It will generally be found to occur at that later period of the gastric ulcer when, after penetrating the mucous and muscular coats, it reaches that interval between the latter and the peritoneal coat in which these vessels run; or when, in the case of an ulcer of the posterior surface, it has eaten into the adhesion fixing it to the pancreas, so as to erode the splenic artery that courses along the upper border of this gland.—No. XXXIII. p. 177.

The blood. . . . . expelled by vomiting . . . . . possesses a colour and coagulation that vary with the amount poured out, the rate of its flow. In other cases blood is effused in considerable quantity without exciting any vomiting. It is rapidly effused in such vast quantity that death ensues almost instantaneously; and it is only at the necropsy that its cause is revealed, in the shape of an enormous mass of clotted blood that distends the stomach.—Page 177.

Such hæmorrhages generally occur soon after a full meal. The mechanical influence of distension of the stomach in disturbing the eroded segment of the vessel is too obvious to require any comment. It seems to be assisted by that afflux of blood to the organ which attends its digestive act.—Page 177.

In many cases, probably the majority, they (these larger bleedings) are altogether absent during the whole progress of the ulcer. In many cases, again, they do not cause death, and even when they are fatal it is rarely by only one attack.—Page 177.

(In one or two instances the necropsy has shown a peculiar condition of the vessel such as quite explains the) intermittent though repeated character of these hæmorrhages. The calibre of this tube (the eroded artery) has been found filled by a clot, the detachment of which from time to time has evidently allowed the hæmorrhage to take place.—Page 177.

The patient is suddenly attacked by violent pain in the epigastrium, which rapidly spreads over the belly, rapidly followed by great tumefaction of the abdomen, and tympanitic distension of the bowels.—No. XXXV, page 173.

This complication (with pulmonary tubercle) appears to be present in about 19 or 20 per cent. of the whole number of ulcers. . . . . But the significance of this proportion must evidently depend on a comparison, &c. The deaths by phthisis, in persons of both sexes above the age of 20, amount to rather more than 18 per cent of the deaths from all other diseases. — No. XXXIII, page 180-1.

In a great majority of instances the occurrence (perforation) will be found to have taken place immediately after a meal; or, in other words, with a distended stomach.—Page 174.

It (perforation) generally takes place soon after a meal, owing, I should think, chiefly to the distension of the stomach which then exists.—Page 182.

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into a large artery of the stomach. They generally occur at a late period of the disease, when the ulcer has penetrated the mucous and muscular coats, and so reached the large vessels which ramify between the latter and the peritoneal coat, or when, as in the case of an ulcer of the posterior surface, it has eaten into the adhesion fixing it to the pancreas, and so opened into the splenic artery that passes along the upper border of this gland. . . .—Page 133.

The appearance of the blood vomited varies with the quantity effused, the rate at which it is poured out, and its course. . . . . In some cases of very profuse hæmorrhage into the stomach there has been no blood rejected by vomiting, but death has occurred almost instantaneously, when the stomach has been found distended by a large mass of coagulated blood.—Page 133.

These hæmorrhages generally occur soon after a full meal, and this is what might be expected, both from the mechanical influence of distension of the stomach, and from the afflux of blood to this viscus during digestion.—Page 133.

Profuse hæmorrhage, however, seldom occurs during the progress of these ulcers, and when it does, seldom proves fatal; even then it is rarely by one attack.

As these hæmorrhages are generally intermittent though repeated. In such cases the opening into the vessel has been found filled by a clot, the detachment of which from time to time has evidently allowed the hæmorrhage to take place.—*Loc. cit.*

The person is seized with sudden violent pain at the epigastrium, which becomes rapidly diffused over the abdomen, attended with great tympanitic distension.—Page 163.

This disease (pulmonary tubercle) is met with in 20 per cent. of the recorded cases of simple ulcer. But the significance of this proportion loses much of its value when we consider that the deaths by tubercular consumption in persons of both sexes above the age of 20, amount to more than 18 per cent. of the deaths from all other diseases.—Page 181-2.

In other passages, Dr. Lees has evidently appropriated Dr. Brinton's descriptions, though he has altered his words. Such are his allusions to the connexion of gastric ulcer with amenorrhœa with chlorosis, with vicarious menstruation; to the mechanical causes of perforation; and to the liability of the double ulcer to perforation. Dr. Lees does not go so far as to omit all mention of Dr. Brinton's name; but, while he is silent, with respect to these frequent, large, and close transcripts from Dr. Brinton's Essays, he here and there acknowledges some collateral and comparatively valueless figures. This even appears to be an additional disingenuousness, as it would convey to most readers the impression that he was under no other obligation to Dr. Brinton's researches. It can be no excuse to say, that different rules of acknowledgment apply to lectures and to ordinary publications. These lectures of Dr. Lees were *published* in a highly respectable Journal, and we are convinced that it would be an insult to the large body of able and honourable men who constitute the Medical Lecturers of the United Kingdom, to suppose that they habitually abuse their responsible position, and corrupt the morals of their audience, by transferring numerous passages from the writings of recent authors into their lectures without a full acknowledgment.

It has been with great reluctance that we have thus exposed, and endeavoured to correct, what appear to us to be public as well as private wrongs. It is, however, one of our duties to protect, not merely the rights of literary and scientific property, but the morality of the Medical Press and of the Profession, and, however painful the task may be, it shall be performed without fear or favour.

THE LAST NEW MEDICAL REFORM BILL.

On Tuesday last, a deputation of the Medical Reform Committee of the British Medical Association, headed by Sir Charles Hastings, had an interview with Mr. Cowper, the President of the Board of Health. The Medical Reform Committee had met previously, and agreed upon several resolutions in connexion with the Corporation Medical Reform Bill. The Association Committee approve certain portions of the proposed Bill, but they urge the necessity of introducing the representative system more fully into the different Corporations than it exists at present. At the interview on Tuesday, Mr. Cowper informed the deputation that it was not his intention to press again upon the House of Commons the Bill which he introduced last session; and, although the Government was favourably disposed towards the Medical Reform Question, it was doubtful whether it would bring forward the Bill of the Corporations as a ministerial measure. Mr. Cowper recommended the deputation again to wait upon Sir George Grey, and we understand that this step will be taken immediately. From the tone of Mr. Cowper's remarks we fear that that honourable gentleman will not himself take any active steps towards the settlement of the question of Medical Reform.

With reference to this Bill of the Corporations, opposed by the British Medical Association, we may remind our readers that in our number of the 1st of November, we published certain amended proposals for a Medical Bill, which had been agreed to by the Medical Corporations of England, Scotland, and Ireland. The document was furnished to us by a private and authentic, but not official, source; and we published it without note or comment, and may fairly claim priority in making known the existence of the negotiations of which it was the result. But as we learn that it has been the cause of no small mystification and excitement, especially amongst our Association brethren, and as it is, on the face of it, a very rough sketch, and, from the absence of detail, may give rise to unfair notions of the objects and principles of the parties concerned, we beg to subjoin a few words by way of explanation, which may be relied on as perfectly authentic. The various Colleges of Surgeons in the three kingdoms, sick of the subject of Medical Reform, determined to agree among each other for the purpose of carrying out such beneficial changes as could be effected by their own authority and co-operation, without waiting for an Act of Parliament. Three objects there are in particular which have been aimed at in Medical Legislation; viz., equality of qualification, reciprocity of rights, and authentic registration. These three points the Colleges of Surgeons determined to carry out by mutual agreement, so far as possible. They next, in each kingdom respectively, solicited and obtained the co-operation of the Colleges of Physicians, and in Scotland of the Faculty of Physicians and Surgeons of Glasgow, and in England of the Society of Apothecaries. Delegates from the eight Medical Corporations of the three kingdoms met repeatedly, and at last came to a perfectly harmonious adjustment of their respective rights and claims. Their next step was, to open negotiations with the Universities of each kingdom respectively, and to invite them to become parties to the proposed measure. This is the stage at which the negotiations have arrived at the present moment. We are authorized to state that the Corporations are quite unanimous, and are determined to show that no selfish adherence to vested rights shall stand in the way of a settlement of this much vexed question. No existing rights are intended to be interfered with by the proposed Bill. The class of English General Practitioners will be fairly represented at the Examining boards. The new Council is proposed to contain a fair representation of each rank in the Profession, and of each recognised Professional Institution; and we do not hesitate to say that the present negotiations hold out the hope of a more unanimous, more equitable, and more probable solution of the difficulties of Medical Reform, than any which have of late years been entered into. It is quite time that the Profession should agree, and should concede what is necessary for agreement. If we cannot agree among ourselves we shall be ruled over by a Government clerk, and shall be served right.

THE WEEK.

The *Code Napoleon* is not very complimentary to the Medical Profession in some of its provisions. Thus, Art. 909 declares "Doctors of Medicine and Surgery, *Officiers de Santé* and *Pharmaciens*, who have been in attendance upon a person during an illness of which he has died, shall not profit by any verbal or testamentary dispositions which he may have made in their favour in the course of such disease." A singular case, in which this law has been declared to be applicable by the Court of Toulouse, has just occurred. A lady, named Salguez, died with the symptoms of pneumonia, declaring her nephew, a Physician of the name of Ségur, her heir. The collateral relatives, learning that Ségur had attended her in her last illness, in which her will was made, opposed it. It seems that the deceased had a great liking to this nephew, treating him as a son, and being very desirous of leaving him well off. He, however, having returned her affection by treating her disease very actively, though in conjunction with other Practitioners called in, has been declared disinherited, and liable to all the expenses! Indeed, formerly this law was deemed applicable to a husband inheriting from a wife under such circumstances; but the Court of Cassation annulled the decision, on the ground that it was not the intention of Art. 909 to oppose impediments to the manifestations of conjugal affection. The present case is also to be taken before the Court of Cassation, but the decisions of the Court of Toulouse are seldom reversed. That Medical men sometimes employ their influence with the dying for selfish purposes, examples in this country too surely prove; but the instances in which such a departure from professional morality could occur, must be far too rare to justify the retention of a statute like the above.

The Austrian Government has issued an ordinance to apply throughout the empire to the epidemics of Cholera in 1854 and 1848, as well as to any that may hereafter occur. By this it is decreed, that the widows of Medical men dying during the Cholera, whether naturally of that disease, or of other diseases, are to receive pensions, and assistance in the education of their children. This is to be the case, not only with those attached formally to the service of the State and public Institutions, but also to Practitioners who have been invited by the authorities to attend cholera patients during epidemics. In our own favoured country the superannuated hanger-on of Court has far more chance of a Government pension than the most devoted martyr to the public service.

We are glad to be able to announce that the Surrey Magistrates have come to a decision to restore Mr. Snape to his former position in the Lunatic Asylum, and to pay him his salary for the period during which he has been suspended from duty. Their conduct offers a very favourable contrast with that of the Commissioners of Lunacy. The latter arrived at a conclusion after a secret inquiry, and upon insufficient evidence. The former determined to obtain the opinions of men eminent in the Profession, as to whether Mr. Snape was, or was not, justified in the prolonged use of the shower-bath. On Saturday last, Dr. Addison, Mr. Bowman, Dr. Quain, Dr. Todd, and Dr. Sutherland, gave evidence in Mr. Snape's favour, and the Magistrates at once acted upon their opinion. Probably, the case will act as a warning against any very prolonged use of the shower-bath; but, as Mr. Snape had found it to be a remedy of great efficacy in many cases, for periods varying up to twenty minutes, there appeared no valid reason why it should not be continued a few minutes longer. The result of the experiment was unfortunate, but, if no powerful remedy were to be used which occasionally led to dangerous consequences, our means of treating disease would be brought within very narrow limits.

Another attempt is being made by the Board of Works to induce Sir Benjamin Hall to approve a modification of the plan he formerly rejected. He has given the new scheme a modified approval, for which we are sorry, as the Naval Officer on whose opinion he relies, Captain Burstal, admits that the "water which passes the outfall at three hours after high-water will be carried *eight* miles down, and back by the return flood *thirteen* miles, or five miles above the outfall," so that the poisoned water is to be kept ebbing and flowing with every tide for thirteen miles, and who can say for how

much more at spring tides and under strong gales of wind. We must not permit such an addition to the ordinary mephitic influence of easterly winds. Whatever the cost may be, the sewage must be carried where it cannot by any possibility return to poison us, and the agricultural treasure it contains must not be wasted. Sir Morton Peto's offer to carry out Mr. McClean's plan, on being guaranteed 4 per cent. on the outlay necessary to carry the Sewage to the German Ocean, with permission to make use of the manure, we still hope to see accepted by Parliament.

So far as the investigation has yet gone, not much, that is interesting in a Medico-Legal point of view has come out in reference to the dreadful murder of Mr. Little. The report that the case was one of suicide did not stand for a moment on close examination. It is true that two Medical men saw the body on Friday evening, when it was nearly dark, and on the most superficial glance coincided in the opinion that it was suicide, but no accurate examination was made until next day. We are informed that Dr. George Porter, who examined the body at the inquest, says the blow which is supposed to have been the first, smashed the left temporal bone to atoms. The wound in the neck, five inches in length, dividing the jugular veins of the left side, was nearly confined to that side, extending only half an inch (not an inch and a-half, as stated in the papers) beyond the median line.

The first case of lithotomy is one epoch in a man's Surgical career, the hundredth case is another. On Saturday last we had the pleasure of seeing Mr. Fergusson perform his hundredth operation of lithotomy. It was done with that precision, quietness, and rapidity without hurry, so characteristic of this Surgeon. After the operation he showed some knives often used by Mr. Liston in this operation, and shortly alluded to the question as to the position in which Mr. Liston held them. A report of Mr. Fergusson's paper on this subject will be found in our number of this Journal for April 12, 1856. A discussion respecting it has been lately revived; Mr. Syme contending that Liston really did hold the knife in the manner represented in his book, and copied in the works of Erichsen, Miller, and Pirie, while Mr. Fergusson replies that Mr. Syme is no authority on the subject, as he scarcely ever saw Liston operate. As the matter is of some practical importance in connexion with the question as to the best mode of preventing the knife from slipping from the groove of the staff, we shall be happy to insert communications from any of our readers who have actually seen Mr. Liston operate, and who distinctly remember how he held his knife.

The authorities of the parish of St. Pancras have advertised a vacancy in their Medical Staff, and they now invite the Profession to compete for the office of Resident Assistant-Surgeon to the workhouse. The candidate must be a member of the Royal College of Surgeons of England, and a Licentiate of the London Society of Apothecaries; and the gentleman elected must devote his whole time to the duties of the office. It is almost unnecessary to mention that the Workhouse of St. Pancras is a very extensive establishment, and that there would be very little opportunity for the Assistant Medical officer to apply his attention to other practice, even if he were inclined to do so. For this laborious duty, the Vestry offer the munificent sum of £75 per annum, with board and residence in the workhouse, and in order to prevent the possibility of any appearance of insubordination on the part of the Medical officer, it is stipulated that the appointment is to be determinable *on three months' notice at or from any time by either party*. This advertisement would be simply amusing were it not for the fact that the vacancy has been caused by what appears to be the unfair and unjust dismissal of Mr. Waldegrave, who has held for several years the post of Assistant-Surgeon to the workhouse, and who has been distinguished for his attention and humanity to the sick poor. If we are correctly informed, Mr. Waldegrave resisted the attempt made by the vestry to diminish his very limited salary, and for this serious offence he has been dismissed from his office. If such be the case, we hope that no respectable member of our Profession will apply for the vacancy so caused.

A melancholy instance of the facility with which poisons may be procured for the purpose of self-destruction has just occurred, in the case of a poor girl who died in University College Hospital from the fatal effects of laudanum and oil of bitter almonds. It transpired that she had been seduced, and, being advanced in pregnancy, she had swallowed the poison in order to hide her shame by the sacrifice of her life. She seems to have experienced no difficulty in procuring these poisons, and, indeed, in the case of the oil of bitter almonds, the article is one of ordinary and open traffic, notwithstanding its well-known deadly qualities. As the poisonous property is owing to the prussic acid which the oil contains, it is much to be regretted that the process of removing the acid is not adopted, before offering this substance for sale. It cannot be too generally known that the fluids sold by grocers and confectioners as "Almond Flavour," "Essence of Peach Blossom," and so on, contain poisonous doses of prussic acid, and should be strictly prohibited from the kitchen.

Nearly a year ago (December 22, 1855), we announced that it was proposed to raise a Monument to the memory of the Medical victims of the war, and we urged our readers to assist in erecting a noble and enduring monument to their brethren who fell in the East. It is now our pleasing duty to give the following circular the greatest publicity, trusting that the appeal will be liberally responded to:—

At a Special General Meeting of Military Medical Officers, held at the Army Medical Board, Whitehall, on Wednesday, the 15th ult., the Director-General in the chair, it was decided unanimously, by a series of resolutions, "That a Monument should be erected, as a lasting testimony of affectionate regard and esteem, for those Medical Officers, Civil and Military (whose names will be inscribed on the tablet), who lost their lives in their country's service during the late campaign, and as an estimate which their surviving brethren entertain of their public labours."

The sum of £327 was announced to have been already subscribed by the Medical Officers in Turkey and the Crimea; but, as the majority of Officers of the Department who may wish also to support the undertaking have not yet had an opportunity of subscribing their names, and as a further sum is necessary, to enable the Committee to carry out the design proposed, subscriptions will be received at the Army Medical Board in London, by John Wimbridge, Esq., the Secretary; by Messrs. McGregor, the Army Agents, at 17, Charles-street, St. James's-square, and by the principal Medical Officers at all stations, at home and abroad.

It will be seen that the co-operation of the Civil Members of the Profession has not been *asked* by our Military Brethren, but we sincerely trust that it will be *offered*, as the object is one of great public interest.

A paragraph has been going the round of the London and Provincial Papers, from which it would appear, on the authority of this Journal, that deaths from chloroform in our Hospitals "are concealed." We published a letter last week on this subject, and explained that the statement was made by Dr. Arnott, not by us. Since then we have received

several communications of a similar nature, and it may, therefore, be as well to state that we did not make any such statement, and do not believe it to be correct. It is hardly necessary to add that no such imputation upon the honour of the Profession would have been made by us, but it is no part of our duty to check the free expression of opinion of gentlemen of character and standing in the Profession who attach their names to their articles.

REVIEWS.

On Artificial Digestion as a Remedy in Dyspepsia, Apepsia, and their Results. By Edward Ballard, M.D., Lecturer on the Practice of Medicine at the Grosvenor-place School, etc. etc.

Dr. Ballard brings a new remedy before the Profession in this pamphlet—pepsine, the essential digesting principle of the gastric juice. The gastric juice of the ruminants, procured after they have been slaughtered, or from the stomach of living dogs provided with artificial gastric fistulæ, contains only 1·25 per cent. of pepsine, 1·75 of salts, and 97 of water, so that a few grains of pepsine supply to a patient, in an inoffensive form, the essential portion of several drachms of gastric juice, the odour and taste of which are both repulsive. Pepsine was introduced into Medical practice by Dr. L. Corvisart, of Paris, and has been extensively tried on the continent. Dr. Ballard speaks of its use after a pretty extensive personal experience. He gives the history of nine cases observed by himself, and of eleven in the practice of other physicians, which certainly lead one to hope that the new remedy will prove to be a most important addition to our present means of treating the various forms of indigestion and the infinite variety of diseases which depend upon defective nutrition of the body.

The Life of Henry Cornelius Agrippa Von Nettesheim, Doctor and Knight, commonly known as a Magician. By Henry Morley. In Two Volumes, 8vo, pp. 332-304. London: 1856.

Cornelius Agrippa was born in 1486, and died in 1535. During the forty-nine years of his life he served as Secretary to Maximilian the First, served Margaret of Austria, wrote three books of occult philosophy, went with an embassy to the Court of Henry VIII. at London, lectured in Italian Universities, was excommunicated by the Pope, was engaged in war and knighted in battle, became Doctor both of Law and Medicine of the University of Pavia, acted as Advocate, Orator, and Physician in the free town of Metz, practised Medicine at Geneva and Fribourg, became Physician to the French Queen-Mother, acted as historiographer to Charles V., was persecuted by monks and Inquisitors, was imprisoned, and at last died in exile, far from his helpless children.

Such a career affords free scope for a biographer, and Mr. Morley has made good use of his materials. His book contains much that is very interesting to the general reader, and something especially so to Medical men. Cornelius was more Philosopher than Physician. He had little faith in physic, which he calls "another art of homicide," and laughs at the pomps and vanities of the Physicians, "the way that will bring practice to the man with velvet coat and rings, or the use of Latin sentences and author's names," and the "saturnine gravity and martial confidence with which a popular Physician sets about his trade," in a satirical vein not unfair. "There is the portentous majesty of deportment towards the Apothecary, . . . the commanding of unusual things, and the prohibiting of things common, . . . the attributing of the patient's death to everything but the doctor, and of the patient's recovery to nothing but the doctor;" and so on, showing that 300 years have not altered greatly the foibles of those who practise physic. A leisure hour may be very well occupied by looking through Mr. Morley's life of this doctor and knight, commonly known as a magician.

Researches in Pathological Anatomy and Clinical Surgery. By Joseph Sampson Gamgee. Pp. 216. London. 1856.

The subjects selected by Mr. Gamgee as the basis of his researches, are of a somewhat miscellaneous character, and are associated together by no connecting link. The first paper contains a classified list of cases in which the heart has been ruptured by external violence. The second recounts some facts contributed to the pathology of dry gangrene, in which the treatment by depletion is somewhat superfluously condemned. The third consists of clinical remarks on cystic sarcoma and cancer of the female breast, and is illustrated by some interesting cases drawn from actual practice. The fourth is on the treatment of cancers by chloride of bromium or Landolfi's paste, of which preparation Mr. Gamgee, from his own observations of Landolfi's treatment, entertains a favourable opinion. The fifth is devoted to some reflections upon the sanitary and moral effects of syphilization and the control of prostitution, and the experiments of Sperno, of Turin, are mentioned with approbation. The sixth paper contains a few observations upon the Neapolitan modification of lateralised lithotomy, with some rather meagre remarks upon the relative merits of lithotomy and lithotrity. The seventh paper discusses the relative merits of the different methods of treating fractures of the lower limbs. And the last is on the calcification and ossification of the testicle and its appendages in man and animals, and on the development of portions of fœtal bone, hair, and teeth, in connexion with the testicle. The latter subject is a very curious and interesting one, and Mr. Gamgee deserves great credit for the pains and labour which he has bestowed on its illustration and on the classification of the bony growths according to the structures concerned.

BOOK NEWS.

The first and second numbers of a new French journal have reached us, the *Revue Etrangère*. We are sorry to see that it does not appear to be conducted on honourable principles. The first number contains, without acknowledgment, a translation of the last extracts which appeared in this journal from the Transactions of the Swedish Society of Physicians. There can be no mistake about the matter, as the French translator has strictly followed the irregular order in which the selections were made for this journal. In the second number there is a translation, also without acknowledgment, of an abstract of Retzius' paper on the Antrum Pylori, published in the Autumn number of the *Dublin Quarterly*. Such things are scarcely worth mentioning; but it would certainly be more honest if the French editor acknowledged the source from whence his Swedish extracts were directly taken.—There is a good deal of useful advice in a pamphlet, by "One of the Maternity," entitled, *A few Friendly Words to Young Mothers*, but we are sorry to see the Matron recommending such domestic remedies as Edgar's Croup Lotion, Dalby's Carminative, and Johnson's Soothing Syrup.—Dr. Saunders's *Hygienic Medical and Surgical Hints* for young officers of the Royal and of the Merchant Navy, are likely to be useful so far as they go; but they contain very little not generally known to Naval Medical Officers, and the suggestions for the treatment of diseases and accidents are too fragmentary to be of much use either to them or to Surgeons employed in the Merchant Navy.—Dr. Ramsbotham's suggestions in reference to the *Means of Advancing Medical Science*, appear in a complete report of his excellent opening address at the Harveian Society, of which we gave so full an account the week before last.—The subject of Mr. M'Whinnie's *Introductory Address*, delivered at St. Bartholomew's Hospital, was made known to our readers with the reports of other introductory lectures at the commencement of the session. It now appears in a complete form, and will well repay perusal.—A little sky-blue, gilt-lettered brochure, by Mr. Westlake, seems to have been written to inform the public, that his "time and attention are principally directed" to the cure of *Ulcerated Legs*. Uniform compression by a flannel bandage is the means on which he appears principally to rely.—*Obstetric Aphorisms for the Use of Students commencing Midwifery Practice* is the title of a little work written by Dr. Joseph G. Swayne, of Bristol. This does not profess to be a systematic treatise on obstetrics, but a series of precepts applicable at the bedside of the puerperal patient. The author has divided it into three parts,—in the first of which he describes the progress and treatment of natural labours; in the second he indicates the cases which may be treated by students without consultation with a senior practitioner; and in the third he points out the severe and complicated symptoms which render it

essential to require the services of an experienced obstetrician. There are six engravings incorporated with the text, and illustrating some well-known but important points connected with the management of labours. We can safely recommend the little volume to the attention of students who are commencing their obstetric practice.—*The Companion to the Lying-in Room* is written by Mrs. Baker, who, in her preface, states that she is a monthly nurse. Her precepts are judicious, and couched in somewhat homely, though sensible language. Her book may be read with advantage by the sisterhood whom she particularly addresses.—Mr. Thomas Grimsdale has published his *Introductory Lecture*, delivered at the Sessional opening of the Liverpool Royal Infirmary School of Medicine. He gives a *catalogue raisonnée* of the different subjects which are necessary to be learned by Medical Students, and recommends them to pay general attention to the whole curriculum rather than to struggle for prizes in one particular department. He also recommends the study of logic before commencing the strictly Medical career, to protect the mind of the student from false reasoning, and the sophistries of empiricism.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE DISEASES OF THE ARMY OF THE EAST DURING THE WINTER OF 1854-5.

By Dr. THOLOZAN.

When sickness began to show itself in large proportions in the French army, M. Tholozan was among the civilians despatched by the Government to the seat of war. In the present paper he presents to the Academie de Médicine a succinct account of some of the facts he observed at Constantinople, from December, 1854, to March, 1855. During this period, he received about 1200 patients sent from the Crimea. In about a fourth of these, the affections were slight and easily treated; but 900 were the subjects of severe disease, and of these 290 died.

The diseases which gave rise to this mortality were the same that filled all the other hospitals of the Crimea and Constantinople, viz., cholera, dysentery, scorbutus, and typhus. The cholera, here as in other armies, was due to an accidental morbid influence arising from the choleraic medical constitution which prevailed at the beginning of the war over a large portion of Western Europe. It is not a disease proper to armies, though it often shows itself among them when epidemic or endemic influences favour its development. What had been already observed in India, Russia, Poland, and Algeria, exhibited itself with identical pathological and epidemiological characteristics in the Crimea. It is quite otherwise with regard to scorbutus, typhus, and dysentery, which arise in armies, crowded garrisons, and besieged towns, displacing, under these circumstances, other forms of disease which are observed in ordinary military life, during a period of peace. Thus, acute phthisis, which in England, France, and Germany is a common disease in the army, and stands in the foremost rank among the causes of death, is met with during a campaign only in very small proportions. Typhoid fever, so frequent in hospitals, is seldom met with under the hygienic conditions of actual warfare. The same may be said of eruptive fevers and acute rheumatism.

Dysentery, scorbutus, and typhus, as they are known in our classical descriptions, form morbid groups totally distinct from each other, and, thus isolated and simple, are easy of recognition. But when they are combined and complicated with each other, forming, as so often observed in army practice, compound diseases, the pathological problem becomes very complicated. Dysentery presents the characters of scorbutus, the scorbutic exhibit the delirium of typhus or sink under dysenteric discharges, while the subjects of typhus suffer from dysentery and become scorbutic. At Constantinople, almost all the grave cases presented these complications, and it was only exceptionally that the part due to each affection could be assigned. Usually, the signs proper to one of these morbid entities disappeared and were replaced by others of a less importance. Thus the characteristic eruption of typhus, so well described by Jenner, was rarely seen when the typhus was complicated by dysentery; the continuous fever characteristic of it disappeared also, while delirium, sometimes very intense, persisted; at other times there were but cephalalgia, vertigo, singing in the ears, and restlessness, without febrile heat. Dysentery was eminently contagious and engendered typhus. In scorbutus complicated with dysentery, changes in the gums and hæmorrhagic discharges were absent; and scorbutic pains, anæmia of the gums, and a cadaverous aspect were the only signs of scorbutic cachexia. At other times the symptoms of typhus were suddenly arrested, and replaced by those of scorbutus in its gravest form. More frequently the scorbutus and typhus were combined, and then were observed fever, œdema of the face, sub-icteric colour of the skin, delirium more intense and more obstinate than in ordinary typhus, and bad gangrene of the mouth and extremities. So, too, scorbutic dysentery presenting typhus symptoms was often met with, and, reciprocally, the typhus of scorbutic patients offering the characters of dysentery.

The author made a most laborious examination of the cases that came under his care both in the wards and in the dead-house; and he reserves most of the data so obtained for a more detailed publication. On the present occasion he confines his attention to the necroscopic results, believing these to be of great interest as illustrating what has been but little studied, the pathology of armies in the field during winter.

Among 79 autopsies, the brain or its membranes presented important changes 47 times, viz. (1) In 18 in the pia-mater; the change consisting in simple œdema in 15, in sanguinolent in 1, and in purulent infiltration in 1. (2) In 13 there were changes in the vessels; these being in an anæmic condition in 10, hyperæmic in 1, and in 2 the seat of capillary apoplexy. (3) In 33 the substance of the brain had undergone changes; there being in 6 well-marked general ramolissement, in 9 well-marked induration, in 10 periventricular ramollissement with ventricular dropsy, in 2 induration and dropsy of the ventricles, in 4 dropsy without change of the walls, in 1 ramollissement of the walls of the 4th ventricle, and in 1 abscess of the brain. These lesions were sometimes combined with each other. Thus œdema of the pia-mater and anæmia of the brain were most frequently observed coinciding with increase of the ventricular fluid. Many other lesions might have been enumerated, if the author had not confined his account to such as were sufficiently marked to be beyond all doubt, and were important enough to figure as causes or results of disease. It may be asked to what morbid influences were these lesions due, inasmuch as none of the diseases above adverted to give rise to such. At first sight, typhus, which is always accompanied by perversion of the functions of the nervous system, might seem the determining cause; but pathological induction teaches us that the nervous symptoms met with in typhus, as in typhoid and in eruptive fevers, are not the product of palpable changes in the cerebral substance. Thus, in typhoid fever, the most intense delirium does not coincide with the most marked hyperæmia of the brain; and in the torpid stage of cholera much less injection is found after death than in the algid period, during which the intellect is quite undisturbed. Moreover, clinical observation proved that, in several of these cases, in which the cerebral changes were most marked, there had been neither delirium nor coma, such patients having been among those who had become emaciated and enfeebled by obstinate diarrhœa. Others, again, dying in this same condition, with delirium and coma, exhibited the same alterations; while in a third category were patients who had not suffered long, preserved their flesh, and exhibited severe cerebral symptoms, and yet in whom these appearances were not observable after death. The few times the spinal marrow was examined, it revealed alterations analogous to those observed in the cerebral substance. Not being able to determine the nature of these lesions, the author contents himself with bringing them under the vague general title of *vices de nutrition*, intending thereby to indicate that they completely differ in their nature from inflammation.

Of the same nature were the lesions of the thoracic and abdominal viscera, some of which were always found accompanying those of the nervous system. In respect to the heart, it was observed (in the 79 autopsies) notably reduced in volume 26 times, its tissue was decoloured or whitish in 23, yellowish in 1, and in 18 atrophied as well as decoloured. In one case only was the change in colour accompanied by increase of fleshy tissue, while in 9 there was diminution of

consistence or friability. 31 weighings of the heart in these cases gave as the mean weight in men from 24 to 35 years of age, 53¾ drams, the highest weight observed having been 73¼, and the lowest 31¼ drams. The liver, together with some alterations only seen in certain cases, presented others which, by their frequency and their coincidence with grave lesions of the brain and heart, acquired a greater importance. In 29 instances among the 79, notable reduction of volume was observed. The mean weight in 27 weighings amounted to 413¾ drams, the maximum weight being 645, and the minimum 202½ drams. In 4 instances the weight did not reach 278 drams, and in 12, it did not reach 325 drams. In the case of the minimum weight the reduction of volume was so remarkable as at once to challenge notice. In most cases there was no change in the colour of the organ, it being neither anæmic nor hyperæmic. Changes were observed in the kidneys 48 times, there being notable diminution in size and weight in 14 instances, hyperæmia in 11, and increase of cortical substance in 8.

Diseases of the lungs, which are of such frequent occurrence in the hospitals of garrisons, even when under the best hygienic condition, disappear in part in camps during winter, when all would seem to favour their production. In 21 cases, pulmonary or pleural lesions were noted, 5 only of these being tubercular. Changes in the gastro-intestinal mucous membrane were the most frequent of all the lesions. In two-thirds of the cases seen by the author, *i.e.*, in 700 or 800 patients out of 1200, diarrhœa had preceded the morbid conditions which led to the hospital, the stools in one-third of these having been sanguinolent. In 1100, out of the 1200, patients, there had been more or less diarrhœa, either at the commencement or during the course of these affections. The 79 autopsies exhibited changes in the large intestines 63 times, in the small 42, and in the stomach 38 times. Ulceration in the large intestines, abnormal follicular development in the small, and small ulcerations in the stomach were the chief changes observed. The sub-mucous tissue of the bladder, in 8 out of 45 cases in which it was examined, presented small roundish spots of ecchymosis. The spleen was found enlarged in 24 instances, and enlarged and friable in 10; but both its dimensions and ramollissement were less than those observed in typhoid fever.

After noticing the numerous changes in the appearances of the skin, the author goes on to say that the fatty tissue of the sole of the foot and palm of the hand, that which forms the cushion on which the ligament of the patella rests, and that which is found at the tibial extremity of the femur, presented, in the 79 autopsies, curious alterations 27 times. With a normal condition of the dermis and aponeurosis, the subcutaneous fatty vesicles were found more or less highly injected, the yellow colour of the fat being concealed by the injected, or even ecchymotic, condition of the cellular covering. It was not a subcutaneous ecchymosis, but a little-known, peculiar anatomical condition of the fatty tissue. The intra-vesicular cellulo-fibrous tissue remained normal, or rather pale, the fat-cellules being very hyperæmic, and sometimes having their surface covered with minute ecchymoses. The fat contained in the vesicles remained unchanged. This lesion was sometimes simultaneously observed in all the regions named above; frequently it was only met with at the sole or near the knee, and was always found to be more marked at the sole than in the palm. The fat, situated beneath the aponeurosis, at the palm or sole, remained unchanged, and the subcutaneous, or deep-seated fatty tissue, presented no such appearance. No connexion could be traced between this appearance and typhus, scorbutus, dysentery, or congelations. It is an undescribed specific alteration, the pathological value of which has yet to be determined.

Gazette Médicale. No. XL.

THE QUEEN'S HOSPITAL, BIRMINGHAM.—The adjourned annual meeting of the Governors, Subscribers, and friends of the Queen's Hospital was held on Friday last, the Mayor, John Ratcliff, Esq., in the chair. Professor Sands Cox, the Honorary Secretary, read the annual report of the Council. This document contained the fullest information on all points of interest connected with the institution, which, from its healthy locality, its admirable internal arrangements, and its extensive grounds for out-door exercise, is peculiarly adapted for its objects.

PROVINCIAL CORRESPONDENCE.

IRELAND.

DUBLIN, NOVEMBER 26, 1856.

YOUR readers are, doubtless, aware, how fearfully the public mind in Dublin was agitated and alarmed some days since by the intelligence that an atrocious murder had been committed, not merely within the precincts of the city, but in the very centre of one of its most frequented public buildings, the terminus of the Midland Great Western Railway of Ireland. So unlikely did it appear that a crime of that nature could be perpetrated in such a locality, and, as it has since appeared was probably the case, at the very time of, or soon after the starting of the evening mail train for Galway, that on the discovery at noon next day of the body of the unfortunate victim with the throat fearfully cut, it was at once inferred that the case was one of suicide. Two Medical men who were speedily summoned, on an inspection which was rendered too cursory by the horrified feelings of one of them, a near relative of the deceased, coincided in this opinion, but the examination of the body, by Dr. George Porter, at the inquest, which was not held until the following day, rendered it evident that the deceased had been brutally murdered. Though a case so plain presents, perhaps, little of medico-legal interest, I may briefly enumerate the post-mortem appearances, and the position of the body when discovered, as they have been described by Dr. Porter and the other witnesses. The deceased was found lying on his right cheek and on his stomach, with his right arm bent under him, the hand being clenched; the left arm was extended from the body, and the hand open; there was no appearance of any struggle having taken place, nor was any weapon found with which the wounds discovered could have been inflicted; there was an incised wound over each eyebrow; five wounds higher up on the forehead; three wounds on the left cheek; a deep wound above the left ear, and a deep wound in front of the same ear; the pupil of the right eye was smaller than that of the left; there was a deep wound on the vertex; there were seven wounds on the back of the head, one of them being crucial; the tip of the right ear was nearly cut off; there was a wound on the front of the throat extending across about five inches in length from below the level of the left ear to half-an-inch beyond the middle line of the neck; the external and internal jugular veins of the left side were divided; the carotid artery on the left side was partially divided; the œsophagus was divided, as were also the muscles in front of the spine to the bone: there was a very slight abrasion of the left shin, but not recent; on removing the scalp a large quantity of blood was found effused under it, just over the vertex and left temple; on examining the skull, an indentation was observed in the centre of the frontal bone; there was a depressed fracture immediately over the right eyebrow; a fracture extended from this to another fracture in the left temporal bone; the entire of the left temporal bone and the greater part of the left parietal bone and the contiguous portion of the occipital bone were broken into innumerable small pieces; the membranes and substance of the brain were lacerated in this situation; there was well-marked livor on the anterior aspect of the body; the limbs were not very rigid when Dr. Porter saw the body about 24 hours after its discovery, probably 36 or 40 hours after the commission of the murder. Dr. Porter stated it as his opinion that the head was cut and the skull fractured by a heavy weapon, and that the throat was subsequently cut with a sharp instrument.

I may mention that the Midland Railway and the Royal Canal, belonging to the same company, run side by side throughout a considerable portion of their course; and that the terminus of the former faces a branch of the canal, leading, after passing over the Foster Aqueduct, to a basin, or kind of harbour. It having been suggested by Mr. Hyndman, the coroner, that the murderer might hope to conceal his deadly weapons in the canal, this portion of it was drained, and a hammer, recognised as having belonged to the company, and a razor but little rusted and of a superior description, were found within a few feet of each other at the bottom. The hammer was fitted by Dr. Porter into the indentations in the skull and the wounds in the scalp, and was found to correspond to them. It has been rumoured that the razor has been examined for blood, both chemically and microscopically; but if this is

the case the result has not been made public. No doubt is, however, entertained that these are the weapons with which this fearful crime has been committed, but as yet the murderer has eluded the hands of justice.

I deferred writing until the last moment, in the hope that I might have been able to communicate some more definite result, which must be my apology for this hurried letter. Even did time permit, I could not immediately turn to one or two other matters I might, under other circumstances, have mentioned, from this description of the work of a base and cowardly assassin, who has brought to an untimely end one whom I myself knew from boyhood to be a most gentle, most amiable, upright, and unoffending individual.

GENERAL CORRESPONDENCE.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

[To the Editor of the Medical Times and Gazette.]

Sir,—At a Meeting of Governors of the Royal Medical Benevolent College, held at my house, October 29, 1856, it was resolved that a courteous application be made to the Council for a minute account of the expenses of the College, so far as they relate to the School for Exhibitions. Such application was made by Dr. C. Taylor, of Bethel-place, Camberwell, on behalf of the Meeting, who undertook to defray any expense to which the College might be put in preparing the same. The following is the reply received from the Council:—

"6th November, 1856.

"Sir,—I beg to inform you that your letter of the 31st ult. was read and considered at the Council meeting yesterday, and the following resolutions thereon were passed:—

"'Resolved,—That inasmuch as the Council of the Royal Medical Benevolent College act under the direction of an Act of Parliament, which prescribes (Bye-Law XI.), that the books shall be open to the inspection of the Governors, the Council cannot sanction any claim upon their officers to furnish any abstract or analysis of the accounts, except the statement submitted to the Auditors and subsequently to the annual general meeting.'

"'That a copy of the above Resolution be sent to Dr. Taylor.'

"I hand you herewith a copy of the revised Laws and Bye-Laws, as presented to the annual general meeting in May last. "I am, Sir, your obedient servant,

"Chas. Taylor, M.D. Robert Freeman."

"Bethel-place, Camberwell."

It will be seen by Rule XI. that any Governor is entitled to inspect the books without licence from the Council, and it certainly appears most arbitrary to oblige Medical men to spend their valuable time in extracting accounts from books which they might not understand, which ought to be freely rendered, and which the Secretary informed me he could prepare in the course of an hour. The Governors have now no alternative but to call an extraordinary General Meeting. The following Memorial has been prepared for this purpose, and all who desire to co-operate are requested to make copies of the same, have them signed in their respective neighbourhoods, and forward them to me, or to J. M. Deere, 35, Lincoln's-inn-fields, on or before the 6th of December next, as the Memorial will be presented on the 8th December.

I am, &c. Matt. Frank Wagstaffe.

Copy of Memorial.

To the Council of the Royal Medical Benevolent College—

We, the undersigned, being Governors of the Royal Medical Benevolent College request that you will convene an extraordinary general meeting of the Governors of the Institution to reconsider the Resolution relating to the increased charge for Exhibitioners, passed at the meeting of the 11th August, 1856, with a view to its being altogether rescinded or satisfactorily adjusted, and also to take into consideration the affairs of the College generally, more particularly as to its working expenses and the further development of the educational department.

MORTALITY AFTER CHLOROFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—Permit me to say a few words in reply to Dr. Arnott's letter in your last, on the subject of the Mortality after Surgical Operations performed under the influence of Chloroform. This will, I hope, bring to an end my part in the discussion; which involves, however, a very important question (as to the secondary effects of chloroform); one only to be settled by carefully-collected observations and cautious reasoning on them. First, as to the details in question between Dr. Arnott and myself. I do not understand how he conceives himself to have refuted my objections to his statements about lithotomy. What I said was, that the operation of cutting is now almost restricted to unfavourable cases. He replies, that crushing is sometimes performed in unfavourable cases too. Possibly; but that has little to do with the question, which is, Is it or is it not the fact, that most Surgeons now only perform lithotomy in the adult when there is some obstacle to the performance of the other operation, and does not such obstacle render moving less probable, antecedent to any question about chloroform? Dr. Arnott makes me say, that I am not surprised that the mortality after lithotomy should have risen above fifty per cent. This, however, I did not say; and I protest against taking any average of mortality from a short table such as Dr. Arnott brings forward, one unaccompanied by any detail of the cases or post-mortem appearances; still more against inferences drawn therefrom as to the effects of treatment. Surely it was Dr. Arnott's duty, before endeavouring to fix so grave a charge upon the Hospital Surgeons of the present day, as that their rashness had more than doubled the ratio of mortality after this important operation, to have taken some reasonable care in examining his cases, in order to see whether it was possible to attribute the deaths to some less discreditable cause, such as large size of the stone, diseased kidneys, and so on (a). There is no operation (not even, I believe, hernia), in which the prognosis varies more than lithotomy in the adult; none, therefore, in which details are more necessary in arguing as to the cause of death.

As to Dr. Arnott's statistics of amputation, he is strangely mistaken in supposing that I objected to his modern list because it was composed from all London hospitals promiscuously. My objection was to his ancient list, because it was *not* so composed (but mainly from the practice of two individuals), and, therefore, to the comparison between them. In fact, I do not believe that his table gives the true average of deaths before the introduction of chloroform.

Dr. Arnott is equally mistaken in saying that I conclude from the returns of two years at St. George's Hospital that the difference was caused by an unheard-of disease—an epidemic pyæmia. I drew no conclusion from them, but merely adduced them as a proof that in our hospital pyæmia and chloroform appeared to have had no connexion together, and to remind him of what he had quite left out of view in his paper, viz., that pyæmia prevailed at the same time extensively among all classes of cases. That there has been such an epidemic, I conclude, not from the few cases which I cited, but from my own and many other men's observations. Pyæmia has followed constantly upon the most trivial injuries, nay has often originated, apparently as an idiopathic disease. I have a case of the kind at present under my care, and have heard of several others. I know that this state of things does not absolutely disprove the assertion that chloroform is a predisposing agent, but it renders us more unwilling to accept that assertion when unsupported by any kind of proof. That the epidemic should be unheard of may, perhaps, be accounted for by the fact, that the disease has not been very long described, and that post-mortem examinations used not to be so frequent of old as at present. With reference to his objection that epidemics, caused by atmospherical or other similar influences, do not last for many years over the whole extent of a country, Dr. Arnott should remember that there has been an epidemic of boils and carbuncles now for many years over the whole extent of the country, and I believe I may say much of the Continent also; and that the epidemics of erysipelas, and other so-called "Hospital" diseases, have pre-

(a) I cannot help thinking that the list Dr. Arnott quotes from is imperfect on the subject of lithotrity. Is it probable that only one case occurred in all the London Hospitals in 1855? The operation is so frequently performed in the ward instead of the operating theatre, that the cases may easily escape your reporters.

vailed just as extensively and long as this of pyæmia has yet been proved to have done, before the invention of chloroform.

But, in fact, these objections to details of Dr. Arnott's paper, though quite sufficient, I believe, to overthrow its credit altogether, are nothing compared to the objectionable nature of his method of arguing. He is struggling to accomplish a logical impossibility, viz., to produce a positive conviction, by throwing on his antagonists the responsibility of proving the negative. Chloroform is the cause of this mortality from pyæmia, he says, "for, if any other cause has been acting, let it be pointed out." This method is false in logic, and can never convince any one who was not convinced before. What Dr. Arnott has to do, if he wishes to prove his point, is to show beyond question that the mortality from this cause has been increased ever since the introduction of chloroform; and this, I contend, he has not done. Then, to show that the mortality is relatively greater among those chloroformed than others; and this he has not attempted to do. Even then, he would only have made the conclusion probable, not proved it, without some explanation of the mode of action. As to Dr. Arnott's theory of the analogy between chloroform and bloodletting, it will be time to discuss it when he publishes the cases on which the opinion is founded.

I could say much more on this matter, but I am afraid that I have already taken up too much of your space in discussing a theory which is neither founded on certain facts nor sustained by logical arguments. I am, &c.

4, Vigo-street, Nov. 18, 1856. T. Holmes.

UNIVERSITY OF LONDON EXAMINATIONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Most fully do I concur in your remarks in to-day's Journal (p. 522), on the advisability of lowering the standard of qualification for medical degrees in the University of London, to meet the cases of some members of the profession, now that a degree of M.D. is so frequently held by General Practitioners. May I be permitted to illustrate your observations by a case, the representative, I doubt not, of a numerous class.

A. has been in general practice nearly twenty years, and is now tolerably fully occupied therein. During this period, however, having a love of his profession and its literature, he has lost no opportunity of perfecting or continuing those studies which he commenced in his student days, in order that he may sustain such reputation as he may since have achieved. His engagements, however, leave but little leisure for maintaining the classical attainments of his earlier days. His knowledge of Greek and Latin is probably below that of many schoolboys.

Within the range of his practice, A. can count among later medical arrivals, at least fifteen or sixteen General Practitioners possessing degrees of M.D. The majority of these degrees have been obtained at distant Universities; the minority, a very few, have the higher honour of degrees conferred by the University of London, obtained without much difficulty in the course of their work as students. There is evidently a tendency to the one faculty system, and the public entertain a predilection for practitioners with M.D. at the end of their names. To cope, therefore, with his more titled rivals, A. must have recourse to one of the more distant Universities—he has no alternative. The examination at the University of London demands a higher standard than his time allows him to attain. The College of Physicians of London cannot confer a degree, but will condescend to grant him an *extra*-licence, to do what he already does by virtue of the apothecaries' licence, if he can show that he is more than forty years of age, and can attest his classical attainments, but he must be prepared to abandon the practice of pharmacy as *infra dig.*

Having during his Hospital days succeeded in gaining such distinctions as were within his reach, A. feels a disinclination to content himself with an inferior degree, but as already said, he has no alternative but so to do, or submit to be regarded by his non-professional neighbours, as of a lower standing in the profession.

It is perfectly true that such degrees confer no additional knowledge, and very little additional dignity, but it is not possible to persuade the public to believe this fact.

Would it not, therefore, be a wise act to remove so manifest an injustice to a large class of practitioners, and so great an obstacle to the success of the London University?

I am, &c.

F.R.C.S., L.A.S.

Middlesex, Nov. 22, 1856.

[To the Editor of the Medical Times and Gazette.]

Sir,—Your last Number contains some editorial remarks on the character of the examination for the degrees of Bachelor and Doctor of Medicine in the University of London, which, from the weight which attaches to them from their appearance in your columns, should scarcely be allowed to pass without comment.

The cause of the paragraph is, the small number of men who have this year graduated; and, while lamenting over the fact that so small a proportion of the mass of Medical Students have the industry to obtain the Metropolitan degree, you suggest that the standard of requirements should be lowered, and thus compete, by offering a sophisticated article, with other Universities.

I conceive that such a step on the part of the University would be nothing less than suicidal. The degrees of the University of London command the unqualified respect of the Profession and the public, simply on the ground of the known comprehensive attainments requisite to insure their possession. Take away this, and the very characteristic feature of the University is gone; she does not possess the prestige of hoary age, she would then no longer possess the sterling honesty of ingenuous youth.

You say, with great truth, that the eight gentlemen who have passed in the first division are, probably, the *élite* of the schools; for the sake of such, I submit, the rigour of the test should be maintained, that they may be marked as among the *élite* of the Profession. On what possible show of fairness can it be argued that these men, with their predecessors and successors, should be swamped in the incongruous mass of men who are annually sharpened and superficially polished at the grinder's lathe. The requirements of society are more and more demanding a high class of professional acquirements, and it will be convenient for the public to know, as they infallibly will, through the medium of the Arts' graduates, as well as numerous other channels, that the "London University Calendor" contains the names of those who, without further question, may be safely entrusted with the superintendence of our Lunatic Asylums, the Medical direction of our Hospitals, or the sanitary arrangements of our towns.

But not only would the course be suicidal, it would inflict also unmerited punishment on her loving children. The Graduates of the University have shed a lustre on their Alma Mater, and deserve a like return. The step you suggest would be unjust to many classes. It would be manifestly unjust to those who have already graduated, and who are filling distinguished positions in the Profession, to have entering their ranks men who might gain easy access by the triturator's helping hand. It would be unjust to the Under-Graduates, who are looking forward with praiseworthy aspirations to the attainment of the degree untarnished. It would be unjust likewise to the embryo student with high and noble resolves, to reduce the value of the prize he hopes to reach.

Let other Universities increase their requirements if they please, it would be an upward step for them; there is, doubtless, room for a vigorous stride, and might procure for their degrees an intrinsic value they do not now possess; but never let it be whispered that for the sake of a wretched equality, the University of London is to step down from her lofty pedestal, to become the embodiment of mediocrity.

Speaking for myself and many similarly situated, I would say, maintain the character of the examination in its present integrity, let no reforming tendencies depreciate its value, preserve to me the possibility of passing at least one examination that is not a sham, although from its stern requirements I may be compelled always to remain

Nov. 25, 1856. An Under-Graduate.

POOR-LAW MEDICAL REFORM ASSOCIATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—You will be somewhat surprised to learn, that of the 3200 sets of questions sent to the Poor-Law Medical Officers of England and Wales, October 11, only 600 replies have as

yet reached me, though the time required to fill them up need not occupy more than a quarter of an hour. With such apathy in the Profession, no wonder the Poor-Law Convention worked so hard for years and yet left so much for us to achieve. Will my brethren never thoroughly arouse themselves from that lethargy which has so long oppressed them, and upon which Poor-Law Boards and Boards of Guardians presume, and keep them ground down to the wretched pittance they now receive? Instance one of the returns which gives the Medical Officer of a Union House on an average only 3½d. per case, including medicines and the removal of two lower extremities, with other operations during the year. This certainly is the worst case I have yet discovered; but there are many others, a summary of which, if laid before Parliament, must convince the most sceptical that our complaints are well founded: but to prove this, requires that the Committee should be in possession of replies from at least two or three thousand medical men. I, therefore trust, each will consider the onus rests with himself, and, without further delay, forward to me his answer to the questions, and not defer until too late to be available, as has been the case with several Unions which postponed signing the petitions sent out last May until after Parliament was prorogued—indeed one reached me only last week.

To those who have not already filled up their papers, let me beg they will carefully answer questions 12 and 13, the former being the number of weekly entries in the books for the last twelve months added together; the latter, the number of orders, *and*, *or* cases attended without orders, if recorded; the two questions, it will be seen, are perfectly distinct, the weekly entries being the cases repeated in the book week after week until cured, etc. I am thus minute, as the incorrect replies to these questions have necessitated me to write at least one hundred letters. Their importance will be apparent when I state, that from them and the salary are calculated the average payment per case and the duration of illness. I am, &c. RICHARD GRIFFIN.

12, Royal Terrace, Weymouth, Nov. 22, 1856.

P.S.—Any gentleman who has mislaid his sheet of questions can be furnished with another copy by writing for it.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, NOVEMBER 18.

Mr. ARNOTT, President, in the chair.

(Concluded from page 530.)

Mr. HENRY THOMPSON showed a specimen of

VILLOUS CANCER OF THE BLADDER.

The preparation had been removed from the body of an elderly man, who had for long suffered severely from vesical irritation, and who had been examined by several Surgeons in the belief that he was the subject of stone. Hæmorrhage had been among his repeatedly recurring symptoms. At the autopsy there was found at the base of the bladder, a little below the orifice of the ureter, a florid mass about the size of half a walnut, the surface of which was covered by villous prolongations, which floated free when placed in fluid. Close to this mass was the orifice of an abscess in the walls of the bladder. In microscopic characters the growth resembled those described as villous cancer.

Mr. HUTCHINSON showed a specimen and coloured drawing from a

VERY LARGE POLYPOID GROWTH FROM THE UTERUS.

The patient, a single woman, aged 36, had been seen by him about a year and a-half ago, when he made a note that there was thickening of the posterior wall of the uterus, as if from the commencing growth of a tumour. She afterwards returned home into Lincolnshire, and was not again seen for a year, when she was again sent to him by Dr. Cammoek, of Spalding, with a note, stating that a very large growth had developed in the uterus. On examination, the vagina was now found to be occupied by a growth, the size of three fists placed together, which communicated by a pedunele the thickness of a wrist, with a growth of probably near the same dimensions within the cavity of the uterus itself. The os uteri was moderately dilated, but very rigid, neither it nor the vagina were in the least ulcerated, nor had they contracted adhesions to the growth. The uterus was so large as to be easily visible to the eye when the abdomen was exposed and lay to the right side, being somewhat fixed in the right iliac fossa. The patient was enfeebled to a degree by repeated hæmorrhages, and on one occasion had been thought to be dead. To the touch, the tumour was lobulated and softish, having neither the rounded outline, nor the firmness of a fibrous growth. It had patches of ulceration on its surface, but these did not display any disposition to fungate like cancer. There were no evidences of secondary growths, and it was determined to attempt the enucleation of the mass, the disease being plainly a fatal one if left alone. The attempt was made on July 28, under the influence of chloroform. It was found impracticable to introduce the hand into the uterus, and, after about half-an-hour's manipulation, during which the vaginal portion of the growth had been a good deal disturbed and lacerated, the attempt was desisted from. No large amount of hæmorrhage had occurred; but, as a precautionary measure, the vagina was plugged with sponge. The patient remained very ill for a fortnight afterwards, and during this time the whole of the tumour sloughed away piecemeal. The vagina was entirely freed, and, as far as could be ascertained, the interior of the uterus also, the latter organ contracting to its normal size. In the course of the next two months the woman regained her health, and was, at the present time, able to go about as others, being wholly free from symptoms. The portions of tumour removed, when examined by the microscope, had much the structure of fibroid recurrent growths. No cells at all resembling those of cancer were seen, nor were there any appearances of developed fibrous structure. Mr. Hutchinson had not seen any similar form of growth in connexion with the uterus, nor was he aware that such had been ever described.

Dr. GIBBS showed a specimen of

LARGE OVARIAN CYST.

It had been removed from the body of a married woman in whom it had been gradually increasing for nine years. He had refused all operative procedures, and death had at length ensued from the pressure of the cyst on the abdominal viscera. The cyst, which appeared to be unilocular, weighed twenty pounds after removal. It involved the right ovary, and was crossed posteriorly by the right ureter. In some parts it appeared to contain solid deposit. The right supra-renal capsule was the size of an egg, and all natural structure lost in a mass of what resembled soft cancer. In the liver also were deposits of a similar kind. The left supra-renal capsule was healthy.

Dr. Wilks and Mr. Hutchinson were appointed to examine the diseased supra-renal capsule, and report thereon.

Dr. GRAILY HEWITT exhibited a specimen of

HYPERTROPHY OF THE HEART, PERICARDITIS, ETC., IN A CHILD.

The specimen consisted of the heart of a little girl, aged 7, who died of general dropsy, after an illness of three months.

Acute articular rheumatism, with which the disease commenced, lasted about three weeks; the heart became affected, and a systolic murmur was heard at the apex of the heart, which progressively increased in intensity. Emaciation, dyspnœa, and other symptoms were then noticed. Two months after the onset of the affection the feet and body became anasarcous, and a jugular venous pulse was observed The dropsy extended to the abdomen; and the patient finally sunk.

The heart weighed 7½ ozs., and was greatly hypertrophied. The two layers of the pericardium were covered by somewhat recent yellowish-white lymph, in places gluing the two surfaces together, and especially abundant round the base of the heart. The extreme thickness of the walls was as follows: left ventricle, $\frac{10}{20}$ inch; right ventricle, $\frac{6}{20}$; right auricle, $\frac{3}{20}$; left auricle, $\frac{5}{20}$. The right cavities contained firm whitish fibrinous clots, the left cavities dark semi-coagulated blood. The measurements of the orifices were; tricuspid $3\frac{14}{20}$ in. in circumference, mitral $3\frac{14}{20}$, aortic $1\frac{14}{20}$, pulmonary 2 in. Minute vegetations in the mitral valve, none on tricuspid. Right lung in great part consolidated;

both pleura contained fluid, as also abdomen. Liver and kidneys congested, large.

The chief points of interest in this case were the measurements of the orifices, the great hypertrophy of the walls, the absence of great patency of the tricuspid valves, viewed in connexion with the occurrence of the jugular venous pulse during life.

Dr. Wilks exhibited a specimen of

CIRRHOSIS OF THE LUNG.

The subject of this disease was a man, aged 24, under Dr. Hughes' case in Guy's Hospital. He had been suffering four years, but had severe symptoms only ten weeks before his death. These were pain in the chest, great dyspnœa, cough, occasional hæmoptysis, and latterly dropsy. He was sent to the Hospital as a case of phthisis, complicated with heart disease (a very unusual combination); for on the one hand he had the physical signs of disorganized lung, as contraction and immobility of the left side, dulness on percussion, and tubular or cavernous respiration; and on the other hand, there was great lividity of the surface of the body, fluid in the abdomen, and anasarca of the lower extremities. There was found however to be no other evidence of heart-disease than the pulmonary obstruction. The dyspnœa was very great; there was much cough, but no expectoration; and the lividity of the surface increased until purpuric spots appeared on the extremities. After death the body presented the appearance of one dead from pulmonary obstruction, such as is met with in cardiac disease, there being much dropsy, a nutmeg liver, &c. The heart was healthy except a slight hypertrophy of the right side. The left lung, the sole seat of disease, was firmly fixed to the left side of the chest, and was in that condition usually known as cirrhosis; that is, the greater part of the organ from apex to base, was converted into a tough dense substance of the consistence of fibro-cartilage, interspersed with the pigmentary matter of the lung, and running throughout it were widely dilated tubes. The latter being either uniformly dilated, or converted into rounded centres.

Dr. Wilks exhibited a specimen of

OSSIFIC DEPOSITS ON THE MUCOUS MEMBRANE OF AIR-PASSAGES.

A man, aged 38, died of phthisis in Guy's Hospital, and after death the larynx, trachea, and bronchi, presented a remarkable appearance from the deposition of a number of small bony plates upon the mucous membrane. These were placed mostly between the cartilaginous rings with which they had no immediate connexion, and were continued down the bronchi. The cartilages themselves were quite healthy. The adventitious deposit consisted of well formed true osseous tissue.

Dr. Wilks also exhibited a specimen of

CONSTRICTION OF THE RIGHT BRONCHUS.

A man, aged 24, was admitted into Guy's Hospital for syphilitic disease of the larynx. As little air was entering the chest, and he was on the point of suffocation, tracheotomy was performed by the House-Surgeon. Death took place a few days afterwards from inflammation of the whole of the air-passages, and upon post-mortem examination considerable disease of the larynx was found, as expected. Besides this, the right bronchus was found contracted to less than half its usual diameter, but below was considerably dilated. There was no recent disease at the part, and the constriction was evidently of long-standing. There was no external pressure to have caused it, but the cartilaginous ring at this spot was destroyed, and it was therefore inferred that at some anterior period a tuberculous gland had passed out into the tube, and that the latter had subsequently healed. From the fact, however, that it occurred in a syphilitic subject, and actually associated with disease in the larynx, the possibility of its being the cicatrix of a syphilitic ulcer was naturally suggested. Many continental pathologists would no doubt have at once declared it to be such, but observations are still wanting in this country to confirm such an opinion.

Several specimens could not be exhibited on account of the time of the Society having expired. The President took occasion to remark upon the great desirability of conciseness in the narration of cases, and hoped that in future members would bear this in mind, and endeavour not needlessly to consume the time of the meeting. It often happened that symptoms and incidents which had been of much interest to those who had observed the case were not at all of sufficient importance to merit being detailed before the Society. This seasonable advice was warmly received by the members present, and the meeting then adjourned.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the meeting of the Court of Examiners on the 21st instant:—

Anthonisz, Peter Daniel, Ceylon.
Bennett, Francis Pon, Birmingham.
Berry, Matthew West, Waringstown, County Down.
Darling, William, New York.
Fitzgerald, Edward Ambrose, Calcutta.
Haslehurst, Thomas Williams, Claverley, Shropshire.
Pearse, Reginald Thomas, Clifton, near Bristol.
Richards, Samuel Atkinson, Camberwell.
Wise, Thomas, Beaumont-street, Portland-place.

At the same meeting of the Court Messrs. Samuel Clift and George Bernie Hill passed their examinations for naval surgeons. These gentlemen had previously been admitted, the former a member of the London College, and the latter of the Edinburgh College, their diplomas bearing date respectively the 9th of June, 1845, and February, 1846.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, November 20, 1856.

Bird, Samuel Dougan, Richmond.
Brabazon, Anthony Beaufort, Nottingham.
Chavasse, Howard Sidney, Sutton Coldfield.
Davies, John, Army.
Haslehurst, Thomas Williams, Shropshire.
Stretton, Samuel, Leicester.
Williams, John, Wrexham

DEATHS.

Bedford.—October 12, on board the steamer "Alma" (having embarked for England), at the Sand Heads, 100 miles from Calcutta, Joseph Richard Bedford, Esq., in his 41st year. He had passed thirteen years in the Medical service of the East India Company, and was deeply respected and beloved by all who came within the circle of his acquaintance.

Playfair.—November 2, at Clarges-street, Piccadilly, James George Playfair, Esq., M.D., formerly of Edinburgh.

Royal Medical and Chirurgical Society.—The following gentlemen will be balloted for on the 11th of December:—Charles J. Hare, Timothy Holmes, Jonathan Hutchinson, and Cornelius Inglis, as Fellows. And as Foreign Honorary Fellows:—A. F. Chomel, Paul Dubois, Bernhard Langenbeck, Louis Stromeyer, A. Velpeau, Rudolph Virchow.

Royal Medical Benevolent College.—A most eloquent and impressive sermon on behalf of this Institution was preached on Sunday last in Rochester Cathedral, by the Rev. Canon Robinson, Master of the Temple, who alluded feelingly to the loss that the City of Rochester had recently sustained by the death of an old and highly esteemed Medical Practitioner, one of whose sons has been received as a Foundation scholar in the College. The collection after the service was one of the largest ever known in the Cathedral.

Midland Institution for the Blind.—On Wednesday the annual general meeting of the governors of the above excellent institution took place at Nottingham. The Right Hon. Earl Manvers presided. Dr. Williams's melancholy and sudden decease has deprived the institution of his valuable services, and will necessitate the election of a physician. The Rev. E. W. Foley moved, "That the thanks of this meeting be given to the honorary secretaries, and the surgeon of the institution, for their services during the past year, and that they be requested to continue the same." On the motion of Mr. J. S. Sherwin, seconded by the Rev. J. J. Peach, Dr. W. Tindal Robertson was unanimously elected physician to the institution, in the room of Dr. Williams, deceased.

ARMY MEDICAL AND SURGICAL SOCIETY.—A Special General Meeting of Medical Officers assembled on November 15, at the office of the Medical Department, Whitehall, for the purpose of receiving the Report of the Provisional Council appointed at the last General Meeting to frame the "Rules and Regulations" of the Society, for the purpose of being submitted for the consideration of members this day, and also to elect office-bearers for the present year. The Director-General presided; and the following is the list of Medical Officers selected by the members present to assume office until the Annual General Meeting of the Society in May, 1857:—

President.—Dr. Andrew Smith, Director-General.

Vice-Presidents.—Sir John Hall, K.C.B., Inspector-General; Dr. Dumbreck, C.B., Deputy Inspector-General; Dr. Taylor, C.B., ditto; Dr. Maclachlan, ditto.

Council.—Dr. Halahan, R.A., Deputy Inspector-General; Dr. Gibson, ditto; Mr. Dartnell, ditto; Dr. Logan, ditto; Mr. Pilleau, First Class Staff-Surgeon; Mr. M'Grigor, ditto; Dr. Balfour, ditto; Dr. Matthew, ditto; Dr. Jephson, Surgeon, King's Dragoon Guards; Dr. Crawford, Surgeon, 18th regiment; Dr. Shelton, Surgeon, 48th regiment; Mr. Laing, Second Class Staff-Surgeon.

Treasurer.—Mr. Blenkins, Surgeon, Grenadier Guards.

Honorary Secretaries.—Mr. Mouat, C.B., Deputy Inspector-General; Mr. Wyatt, Assistant-Surgeon, Coldstream Guards.

Auditors.—Mr. Finden, Surgeon, 2nd Life-Guards; Dr. Reid, Second Class Staff-Surgeon.

The ordinary meetings of the Society are, at present, appointed to take place on the first Saturday of each month at half-past seven o'clock p.m., commencing on Saturday the 6th of December, when a paper will be read by Mr. Blenkins, the Treasurer, on a case of aneurism successfully treated by compression; with remarks.

THE NIGHTINGALE FUND now exceeds £37,000. A first instalment of £1000 has just been received from Calcutta.

INSPECTION OF DRUGS.—The first inspection of Apothecaries' shops in the city, since the last annual appointment of the Censors of the College of Physicians, was made last week by them, assisted by the Wardens of the Society of Apothecaries. On this occasion they had the satisfaction of observing a decided improvement in the quality of the drugs and preparations, and in the state of the shops. Various new precautions had been adopted to avoid the danger of mistakes in dispensing poisonous materials; such as the use of bottles of particular form and colour to contain deleterious substances; together with plans to draw attention to the bottle itself, on dispensing poisonous medicines, such as having the stopper so tied to the neck of the bottle that it could not be taken out without attracting the notice of the dispenser. The President and Censors approved these expedients, and agreed that some such precautionary plans should be recommended to all dispensing Chemists, and they are prepared to take such measures as may be best calculated to carry into effect such a reform.

THE AGRÉGÉS OF THE PARIS FACULTÉ DE MÉDECINE.—The Minister of Public Instruction has just nominated (in place of *concours*) MM. Gosselin, Tardieu, Béclard, and Barth as *agrégés*, and MM. Béclard, Vigla, Jarjavy, and Hardy have been appointed to supply the place of the Professors who may be prevented delivering their lectures. M. Hardy has refused acceptance, and M. Aran has been appointed in his stead. The twenty-six *agrégés* of the *Faculté* are thus distributed:—*Section* 1. *Anatomical and Physiological Science.*—Anatomy and Physiology: MM. Verneuil and Béclard. Natural History: M. Robin. *Section* 2. *Physical Sciences.*—Physics:—M. Regnault. Chemistry: M. Leconte. Pharmacie and Toxicology: M. Orfila. *Section* 3. *Medicine properly so called, and Legal Medicine.*—Internal Pathology, Clinique, General Pathology, Materia Medica and Therapeutics, and Hygiène: MM. Vigla, Becquerel, Guéneau de Mussy, Hardy (resigned), Aran, Bouchut, Delpech, Gubler, and Laseguc. Pathological Anatomy: M. Barth. Legal Medicine: M. Tardieu. *Section* 4. *Surgery and Accouchements.*—Surgery: MM. Gosselin, Richet, Jarjavay, Sappey, Broca, Follin, and Richard. Accouchements: MM. Depaul and Pajot.

MORTALITY NOTABILIA.—The returns for the week that ended on Saturday exhibit a decided increase of the deaths in London. The deaths, which at the beginning of this month were about a thousand in a week, and were afterwards 1090, rose last week to 1261. In the ten weeks corresponding to last week of the years 1846-55 the average number was 1072; and the same rate of mortality in the present increased population would have produced 1179 deaths. There was, therefore, last week an excess of 82 above the corrected average. The increase on the previous weeks of this month arises almost entirely from diseases of the respiratory organs. In connexion with this increase in the mortality, it may be stated that the mean temperature of the air was on every day, from the 2nd instant till the 20th, below the average, and often so much as 7° below it; whilst fogs, more or less dense, were frequent. An increase, though not great, is also apparent in fever and measles.

BIRTHS.—The births of 811 boys and 767 girls, 1578 children, were registered. Average, 1440.

METEOROLOGY.—The mean height of the barometer in the week was 30·025 in. The mean was above 30 in. on four days. The highest reading occurred on Friday, and was 30·15 in. The mean temperature of the week was 42·3°, which is very near the average of the same week in 38 years. The daily mean temperature was above the average on the last three days, and on Saturday the excess was 8°. The highest reading in the week occurred on Saturday, and was 52·6°; the lowest was 23·8°, and occurred on Monday. The entire range of the week was therefore 28·8°. The mean dew-point temperature was 40·1°, and the difference between this and the mean air temperature was only 2·2°. Mean temperature of the water of the Thames, 42·4°. Wind north-west. Rain 0·15 in. Horizontal movement of air, 515 miles; electricity positive, with very strong tension.

THE following are the number of Deaths from Small-pox Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	8	2	4	4	8
North	490,396	1	10	5	7	5	10
Central ..	393,256	2	5	13	5	4	9
East.....	485,522	..	3	8	17	..	19
South	616,635	1	9	14	11	4	11
Total..	2,362,236	4	35	42	44	17	57

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, November* 22, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, Nov. 22, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.	° 42·3						° 42·3
Mean Temperature							
ALL CAUSES	1261	605	172	215	230	39	1071·8
SPECIFIED CAUSES	1259	604	172	214	230	39	1066·2
DISEASES:—							
1. Zymotic Class	237	188	23	11	15	..	260·5
2. Dropsy, Cancer, and others of uncertain seat	55	4	5	24	20	2	46·4
3. Tubercular Class	208	70	80	53	5	..	165·5
4. Of Brain, Nerves, etc. ..	117	60	8	18	27	4	117·6
5. Of Heart, etc.	53	5	10	18	19	1	43·0
6. Of Respiratory Organs ..	323	162	27	61	69	9	207·6
7. Of Digestive Organs ..	58	16	6	15	19	2	57·2
8. Of Kidneys, etc.	10	1	3	3	2	1	10 9
9. Of Uterus; viz. — Puerperal Disease, etc. ..	5	1	2	1	1	..	10·1
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	6	3	..	2	1	..	9·2
11. Of Skin, etc.	4	1	1	..	2	..	2·6
12. Malformations	4	4	..	..	..	..	3·9
13. Debility from Premature Birth, etc.	27	27	..	..	..	..	24·1
14. Atrophy	40	30	1	..	9	..	26·5
15. Age	54	..	..	..	35	19	45·2
16. Sudden	13	6	3	3	1	..	7·9
17. Violence, Privation, etc. ..	40	26	3	5	5	1	28·0
CAUSES NOT SPECIFIED.. ..	2	1	..	1	..	..	5·6

BOOKS RECEIVED.

Supplement to Lizars' Anatomical Plates. Edinburgh. 1856.

An Address delivered at the Liverpool Royal Infirmary School of Medicine. By T. F. Grimsdale. Liverpool. 1856.

The Compauion to the Lying-in Room. By Mrs. Baker. London.

Diseases of the Stomach and Duodenum. By C. E. Reeves, B.A., M.D. London. 1856.

Revue Etrangère. November. 1856.

A Treatise on Therapeutics and Pharmacology. By G. B. Wood, M.D. Two Vols. Philadelphia. 1856.

Cliuical Lectures on the Diseases of Women and Children. By G. S. Bedford, A.M., M.D. Fourth Edition. New York. 1856.

The American Journal of Dental Science. October. 1856.

The Charleston Medical Journal. September. 1856.

On Artificial Digestion. By E. Ballard, M.D. London. 1856.

Obstetric Aphorisms. By J. G. Swayne, M.D. London. 1856.

Hints for Young Officers of the Royal and Merchant Navy. By W. M. Saunders, M.D., R.N. London. 1856.

Introductory Address at St. Bartholomew's Hospital. By A. M. M'Whinnie, F.R.C.S. London. 1856.

Quarterly Return of the Registrar-General for Scotland. Edinburgh. 1856.

Supplement to the Pharmacopœia. By T. Redwood, Ph.D. London. 1856.

On the Origins of the Visual Powers of the Optic Nerve. By Joseph Swan. London. 1856.

A Few Friendly Words to Young Mothers.

On the Constitutional Treatment of Female Diseases. By E. Rigby, M.D., etc. London. 1856.

Essays on Infant Therapeutics. By John B. Beck, M.D. Second Edition. New York. 1855.

Lectures on Materia Medica and Therapeutics. By John B. Beck, M.D. New York. 1856.

TO CORRESPONDENTS.

One of the Maternity.—If the case be interesting and authenticated by a Surgeon it might be inserted.

Mr. C. Bennett, Shiffnal, Shropshire.—We believe that there will be no alteration of the rules next March; the change is usually made in August of each year. The subjects of Examination are advertised in the Journals three times a-year. We can give no opinion as to the probability of the classical and mathematical examination being compulsory, and in the present unsettled state of Medical politics, it is quite impossible to anticipate what six months may produce. It is not at all likely, however, that the preseut standard of general and medical education will be reduced in any future legislation.

Curiosus.—*Apiol* is the name given to the oil obtained from parsley. It has lately been recommended in the treatment of intermittents.

A Father.—If it is intended that the youth should enter into general practice, he ought to be apprenticed to a Licentiate of the Society of Apothecaries for five years; but it is not expected or required that the period should be spent in actual servitude. The pupil may, if he please, attend Lectures and Hospital Practice during the whole of the term.

A Neophyte.—There can be no question as to the propriety of removing the placenta before leaving the patient. No Practitioner ought to consider that his duties are terminated until this operation has been performed. It is true that in many cases Nature will effect the separation without assistance, but this can be no excuse for negligence on the part of the Practitioner.

Impatiens.—We cannot perceive, from the statement forwarded to us, that any blame is attributable to the Medical gentleman in attendance. If the case does not proceed so favourably as could be wished, it is quite competent for the patient to propose a consultation.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As the accompanying letter defines so clearly and in such few words the usefulness of my water cushions and water beds, I asked Dr. Wood to allow me to send it to your Journal for publication, which he immediately consented to. I shall, therefore, feel obliged by your inserting it in an early number. I am, &c.

7, Pall Mall East, Nov. 20, 1856. William Hooper.

"Cheapside, Wakefield, 18th Nov., 1856.

"Sir,—I enclose a post-office order in payment of your account for the water cushion.

"This cushion is for the same patient as that which you sent me three years and a-half ago, and I think it but justice to you to say, that in consequence of severe morbus coxarius, the patient has been laid upon his back during the whole of that time without any bedsore whatever, so long as the cushion could be used; but during the short time that elapsed between the old one being unfit for use and the arrival of the new one, a bedsore began to form.

"I am, Sir, your obedient servant,

"William Wood, M.D.

"Mr. William Hooper, 7, Pall Mall East, London."

A Caution.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A person representing himself as Dr. Warner is going about town soliciting pecuniary assistance from medical men. As I have heard from various quarters that he uses a card of mine as an introduction, I would take the liberty of requesting you to inform the members of the Profession that Dr. Warner has no authority for doing so, and that the only thing I know of him is, that in May last he unfortunately prevailed upon me to give him some money. I am, &c.

E. H. Sieveking.

3, Bentinck-street, Manchester-square, Nov. 24, 1856.

Dr. Kingsley.—There is a very good Anatomical Museum at Cambridge. It originated in a small number of choice preparations presented to the University by Mr. Lawrence. The Museum of Sir Busick Harwood was afterwards added to it; and in 1836 the valuable collection of Dr. Macartney, Professor of Anatomy in Trinity College, Dublin, was purchased by the University, a great acquisition to the riches of the Museum.

P. R. C.—Henry VI. granted letters patent to certain persons who undertook to find out the philosopher's stone, and to change other metals into gold, to be free from the penalty of the statute 5th of Henry IV., made against the attempts of chemists of this nature. The latter statute had its rise in the lavish waste of valuable material and the ruin of many families by useless expenses, in the pursuit of "extraordinary methods of producing" the precious metal.

Sanitas.—Penalties against the manufacture or sale of unwholesome provisions date as far back as Henry III., who prohibited the sale of "corrupted wine, contagious or unwholesome flesh, or flesh that is bought of a Jew," under pain of amercement for the first offence, pillory for the second, fine and imprisonment for the third, and abjuration of the town for the fourth.

T., Worcester.—Hermaphrodites may inherit as heirs, and take according to the prevailing sex.

Mr. Field's Case of Rupture of the Bladder shall be inserted.

J. A. M. (Gibraltar).—The reports will appear in the next volume. Dr. Frank left England for the Cape last month.

An Aspirant.—The Société de Médecine de Caen does not in its Programme specify the languages in which the Prize Essays are to be written; but it is almost the invariable rule of the French learned Societies to require these to be written in French or Latin, or that they should be accompanied by a translation.

COMMUNICATIONS have been received from—

Curiosus; Dr. B. A.; Ignoro; Mr. White; Impatiens; A Neophyte; Sans Souci; A Father; Dr. Laycock, Edinburgh; Mr. Sands Cox, Birmingham; Dr. Mackenzie; Dr. Babington; Dr. Webster; Dr. Merriman; Dr. Arnott; Dr. Moore, Bombay; Dr. Hardy; Dr. Sieveking; Dr. Ransom; Dr. Marston; Dr. Baines; Mr. Windsor; Mr. Gibson; Mr. Bell; Mr. Wyatt; Mr. Baines; Mr. Leigh; Mr. Field; Mr. Down; Dr. Ramskill; Mr. Griffin.

APPOINTMENTS FOR THE WEEK.

November 29. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

Medical Society of London, 8 p.m.

December 1. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

Epidemiological Society, 8 p.m.
Royal Institution, 2 p.m. *General Monthly Meeting.*
Royal Society, 4 p.m. *Anniversary.*
Entomological Society, 8 p.m.
Chemical Society, 8 p.m.

2. *Tuesday.*

Operations at Guy's, 1 p.m.
Pathological Society, 8 p.m.
Linnean Society, 8 p.m.

3. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 3 p.m.

Hunterian Society, 8 p.m.: Dr. Barlow "On Inflammation."
Pharmaceutical Society, 8½ p.m..
Geological Society of London, 8 p.m.

4. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

Photographic Society, 8 p.m.

5. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

Western Medical and Surgical Society, 8 p.m.: Dr. Scott Alison will read a paper "On the Sphygmoscope; its Physiological and Practical Application."

ORIGINAL LECTURES.

A COURSE OF LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.,

Assistant-Surgeon to the Royal Orthopædic Hospital; Lecturer on Surgery at the Grosvenor-Place School; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital, etc.

LECTURE X.

(Continued from page 486.)

Operations required—History of the Operative Treatment—Order in which the Tendons should be divided—Mode of performing the Operations, and the Knives used—Difficulties and Accidents connected with Division of the Tendons.

OPERATIONS REQUIRED.

Tendons, Fasciæ, and Ligaments requiring Division.—The great majority of cases of talipes varus require the division of certain tendons, and of these it is found necessary to divide the tendons of the tibialis antieus, tibialis postieus, and flexor longus digitorum muscles, and also the tendo-Aehillis. In some very slight cases it may be necessary to divide one or two only of these tendons, but in cases of well-marked varus, even of a moderate degree of severity, it is better to divide all of them.

The plantar fascia frequently requires division in infantile cases, and eonstantly in adult cases. Contraction of the plantar fascia always exists in the severest forms of infantile varus, but sometimes also occurs in the slighter forms, when it may be regarded as a speeial peculiarity of the deformity.

Subcutaneous section of the ligaments has not yet received much attention in orthopædie surgery, but cases of varus of extreme severity are sometimes met with in children,—more commonly at a later period of life, in boys of twelve or fourteen years of age for instance—which obstinately resist the ordinary method of treatment, and in one sueh case Mr. Lonsdale has recently made a free division of the ligamentous bands at the posterior part of the ankle-joint. Thc ease is still under treatment, and some improvement is apparent, although slow. In some of these very severe cases it appears to me that the deltoid ligament might be divided with advantage, and that after its division the navieular bone would be more readily separated from the inner malleolus. Mackeever(a), in three dissections of congenital varus in infants, found that the tuberosity of the os calcis touched the fibula, and that the os navieulare was in contact with the inner malleolus, and adherent by strong bands of fibrous tissue (the deltoid ligament? W. A.), on division of which the foot was readily restored to its natural position. The operation has never been performed, and eould only be required in some rare eases.

History of the operative treatment.—A sketeh of subcutaneous tenotomy has already been given in the historical account of orthopædic surgery which formed the subject of the introductory leeture; but with regard to the special operations for the eure of talipes varus, it may be observed, that in the earlier days of orthopædie surgery, division of the larger and more easily reached tendons was thought to be sufficient. The tendo-Achillis was either divided alone, or in conjunction wi h the tendon of the tibialis anticus musele, and sometimes with the plantar fascia. The division of the tendon of the tibialis posticus muscle, was introduced at a later period, but the fear of inflammation in dividing deep tendons, and the proximity to the posterior tibial artery prevented the application of subcutaneous tenotomy to the posterior tibial tendon. This tendon was, therefore, divided by open wound, when the operation appeared to be indispensably necessary for the eure of the case, but it was found to be a dangerous proceeding, and was, therefore, avoided as mueh as possible. The consequence of not dividing the posterior tibial tendon in the earlier operations, *i. e.* previous to the year 1842, for varus in infantile cases, was a very frequent, if not eonstant return of the deformity in severe eases. Its subeutaneous division was oecasionally performed in adults and in youths, when the tendons eould be felt externally and therefore easily reached; but the subcutaneous division of the posterior tibial tendon in infants was the last aehievement of tenotomy as applied to the eure of varus, and the credit of devising a method by whieh this operation ean be effected with safety, or with very little risk, belongs to Dr. Little, and was accomplished in the year 1842.(b) A fatal ease after the operation by open wound appears to have led immediately to this great improvement.

Stromeyer first divided the posterior tibial tendon on the 9th August, 1834.(c) He passed a bistoury down to the bone, between the tendon and the artery, protecting the latter by the nail of the index-finger of his left hand, and then earried the knife forwards. The external wound is stated to have been nine lines in length. In subsequent operations, Stromeyer describes the external wound as being three-quarters of an inch in some, and in others an inch and a half in length, the tendon being divided in some cases by the point of the bistoury alone, and in others he opened the sheath and divided the tendon on a grooved director. The wounds generally healed from the fifth to the ninth day. The ages of the patients are not mentioned, but from the description given they eould not have been infantile cases.

Velpeau, in 1839, (d) says, that "the subcutaneous seetion of the posterior tibial tendon, proposed by M. Held (Professor in the University of Strasbourg), in 1836, appears not to have been performed, except on the dead subjeet." He then alludes to the danger of the operation above the malleolus, from the proximity of this tendon to the artery, and advises that the tendon should be divided "half-an-inch below and in front of the inner malleolus," close to the insertion of the tendon into the navicular bone. Weis, of Hanover, in 1844, also reeommended this operation (e).

Professor Syme, of Edinburgh, has lately revived the operation of Velpeau, and has given precisely the same directions for its performanee.

Now, you will remember, that, in describing to you the altered relations of the posterior tibial tendon in eongenital varus, I have already pointed out the impossibility of dividing this tendon below and in front of the inner malleolus in all the severe, and even in the moderately severe, eases of this deformity; because the navicular bone is displaeed, and held firmly in contaet with the inner malleolus by the contraction of the posterior tibial muscle. In very slight congenital cases, and in most of the non-congenital eases, this operation may be performed, but in sueh cases its division is seldom required.

Dr. Little states (f), "At the period of publieation of his *Treatise on Club-Foot, &c.* (1839), the author (Dr. L.) had only operated on the posterior tibial in adolescents and adults, in whom it is visible or easily felt, by the method of Stromeyer. From this period to 1842 he was aecustomed in children above the age of twelve months, from the difficulty of aeeurately feeling the outline of the tendon, to expose the tendon by an incision in the integuments three-quarters of an inch in length, and divide it upon a director. Having about this period witnessed suppuration in a limb ending fatally, in which a tendon had been severed after exposure, the author relinquished this departure from subeutaneous tenotomy." Dr. Little then describes a method proposed at this time by Mr. Tamplin, "to divide the posterior tibial by effecting a puncture into the sheath of the tendon with a stilette and canula; and, after withdrawal of the stilette, introdueing through thc canula a blunt-pointed knife." "The idea of thus dividing the tendon from before backwards towards the artery, (Dr. L. observes), was novel, but both unsuceessful and unsafe." Dr. Little states, that he tried this proceeding two or three times, and then "rejected the stilette and canula, substituted a small scalpel for making an aperture into the sheath, and had the knife *b*, Fig. 122, made by Ferguson, as an improvement upon the tenotome of Bouvier, with which to divide the tendon, satisfied that if he should wound the posterior tibial artery, it would in all probability be by a division, and not

(a) Edinburgh Medical Journal, Vol. XVI., 1820, page 220.

(b) Deformities, page 297.
(c) Berträge zur Operativen Orthopädik. Hannover. 1838. p. 77.
(d) Elements de Médecine Operatoire. Paris. 1839.
(e) De Tenotomia Talipedibus Applic. C. Weis. Havniæ. 1844.
(f) Deformities, page 297.

by a puncture." This is the method we now adopt, with the exception that the knife used has a plain rounded extremity, as in Fig. 42 E, instead of a button point.

Excision of the Cuboid Bone.—I must here make some mention of an operation which has been performed for the cure of varus, though it cannot be included in the list of *operations required* under ordinary circumstances. Possibly, however, under some peculiar circumstances, and at an age beyond that at which varus has been proved to be curable by the ordinary means, the Surgeon may be called upon to resort to it, either in preference to amputation, or as a means of improving the condition of the patient. I allude to the removal of a wedge-shaped portion of the foot, or what has been described under the title of excision of the cuboid bone. This operation was first suggested by Dr. Little, who observes (g) :—" He (Dr. Little) has often thought that, in inveterate varus, such as Figs. 105 and 106, the treatment might well be commenced in robust subjects by ablation of the os cuboides, which, in preventing the unrolling of the foot, acts as the key-stone of the inverted arch. He is of opinion, that by this means the treatment of certain cases might be reduced from twelve months to six or eight weeks." In the next paragraph, Dr. Little remarks :—"Age sets no limit to the applicability of tenotomy; the author has successfully treated adult varus at the age of forty, and non-congenital equino-varus at fifty-four." We may, therefore, assume that, except under very extraordinary circumstances, Dr. Little would not recommend the above operation under the age of forty. A case, however, did occur a short time since, in which Dr. Little did recommend the operation in a gentleman, aged 21, who came to this country to be cured of a severe form of congenital varus, similar to that represented in Fig. 32 and 33, in the eighth lecture, *Medical Times and Gazette*, May 24th ult. The case was under the care of Mr. Solly, of St. Thomas's Hospital, who performed the operation on the 26th June, 1854, and by whose invitation I was present, but was not consulted regarding it. Dr. Little and several Surgeons were also present. The operation was performed under chloroform, by making a free incision over the convexity and outer margin of the foot, exposing the cuboid bone, which was then removed piecemeal by the gouge. Possibly portions of other bones were also removed, the object being, in a mechanical point of view, the removal of a large wedge from the convexity of the foot, and care was taken to remove the apex of the wedge by introducing the gouge far enough towards the astragalus. The foot was then forcibly everted, and subsequently, efforts were made to maintain the foot in this position by the application of the Scarpa's shoe and other instruments; but considerable difficulty was experienced, in consequence of the wound interfering with the application of pressure on the convexity of the foot. The details of this case, and the result of the treatment adopted, will shortly be laid before the Profession by Mr. Solly.

I have already indicated the circumstances under which it appears to me that a Surgeon might possibly be called upon to perform this operation; and would only add that, in the experience of the Orthopædic Hospital, we have numerous instances of cure of the severest form of congenital varus at the age of 30 years, and some few above this period; the feet being tolerably perfect as to form, and useful to the individuals, but with limited motion at the ankle-joint. In favourable cases, especially in women, the same result may, possibly, be obtained at the age of 40 years. Within these limits, therefore, congenital varus may be considered as curable by the ordinary means of tenotomy, combined with mechanical and physiological treatment.

Order in which the tendons should be divided.—It is not only necessary that certain tendons, above enumerated, should be divided; but it is also necessary that, in all cases attended with any marked degree of ligamentous rigidity, these tendons should be divided in a definite order which has been determined by practical experience, and can be proved to be strictly in accordance with the mechanical and anatomical conditions of the deformity. In slight cases, or those attended with a slight degree of ligamentous resistance, it is sometimes the practice to divide the tibialis anticus, tibialis posticus, and flexor longus digitorum tendons, and also the tendo-Achillis, at one sitting. Mr. Tamplin adopts this plan much more frequently than either Mr. Lonsdale or myself.

(g) Deformities, page 305.

In all severe cases it is absolutely essential to divide the operative treatment into two stages; the second operation being performed after an interval of a few weeks or months, according to the age of the patient and the severity of the case. The great practical point is to overcome the inversion of the anterior portion of the foot; or, in other words, to convert the varus into equinus, and thus reduce a compound to a simple deformity, before dividing the tendo-Achillis. With this view, therefore, we divide at the first operation the tendons of the tibialis anticus, tibialis posticus, and flexor longus digitorum, and then evert the foot by mechanical means. The practice at the Hospital is to divide the tibialis posticus and flexor longus first, because, if the artery should be wounded, the treatment will be prolonged; but when the anterior tibial is much contracted, I prefer dividing this tendon first, because I think more satisfactory evidence is then obtained of the division of the posterior tibial. There is no greater error in the treatment of severe varus, or one more frequently committed by Surgeons of the present day, than the division of the tendo-Achillis at the first operation, either by itself, as is frequently done, or conjointly with the division of the other tendons. By such a proceeding, too many objects have to be accomplished at the same time by mechanical means, and failure in some of them usually results—eversion of the foot is imperfectly obtained; depression of the os calcis is also imperfectly obtained, and relapse of the deformity rendered certain. It is now, therefore, an established rule in Orthopædic practice that the tendo-Achillis should be the last tendon divided, and that its division should be delayed till the equinus alone remains to be cured.

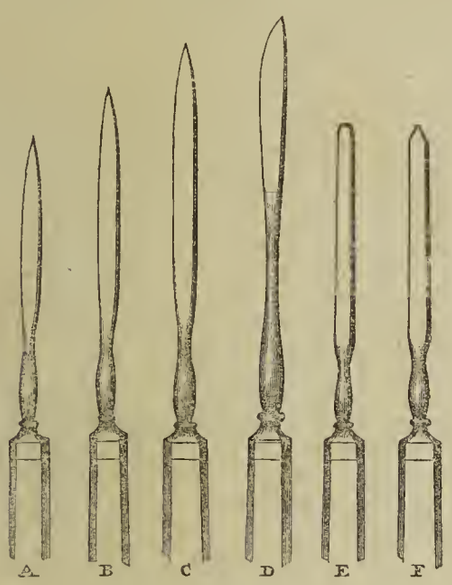
The plantar fascia, if but slightly contracted, may be divided either at the first or second operation, provided that a Scarpa's shoe be used for the mechanical treatment; the general practice at the Orthopædic Hospital is to divide the plantar fascia and the tendo-Achillis together at the second operation. However, I would recommend to you that when the plantar fascia is much contracted, causing an obvious shortening of the foot and increase in the convexity of the tarsus, its division should be made a separate stage in the treatment, and should be performed after the division of the tibial tendons and before the section of the tendo-Achillis. It occurred to me that by so doing we might make use of the contracted condition of the tendo-Achillis in fixing the os calcis during the process of unfolding the longitudinal arch of the foot, by the application of pressure to the anterior part of the foot, in an uplifting direction. If the tendo-Achillis be divided at the same time as the plantar fascia, the foot must be elongated by direct pressure downwards on its tarsal convexity, a more painful and uncertain process than that which I have recommended. The advantages of this plan in a most severe case of adult deformity were remarkably well illustrated in the case Figs. 32 and 33, in which rapid progress was made after a free division of the plantar fascia at a late stage of the treatment, but previous to the division of the tendo-Achillis.

Mode of performing the operations.—It is an established practice at the Orthopædic Hospital to divide all the tendons, and the plantar fascia from below upwards towards the skin. The knife is introduced obliquely downwards, with the flat surface parallel with the tendon to be divided. The point is then carried behind the tendon, as close to it as possible, and the handle of the knife depressed. The cutting-edge is now turned against the tendon, which, in infants, yields before a little direct pressure, the tendon being simultaneously made tense by an assistant who has charge of the foot. In older patients, and when the larger tendons are divided in children, a little cutting movement is required; but this is to be avoided as much as possible, and a clean transverse section made. It is a great object to avoid disturbance of the surrounding parts, and the division should be made quickly, neatly, and with decision rather than force. The foot should be instantly restored to its deformed position by the assistant, so as to approximate the divided extremities of the tendon, and the knife withdrawn. The wound should be immediately covered by a compress of lint and a strip of adhesive plaster. Some observations which I made to you when describing the division of the tendo-Achillis for the cure of talipes equinus, are also applicable to the operations on the other tendons. The foot is then to be bandaged, and a softly-padded splint applied, so as to retain it in the deformed position; we use tinned-iron splints, which can be bent to any form previous to being applied. The foot must then remain undisturbed for three or

four days. The objects of immediately applying a compress, and allowing it to remain a few days, are, 1st, to exclude the atmosphere from the wound, and, 2nd, to prevent extravasation of blood, and inflammatory exudation into the subcutaneous areolar tissue. The object of retaining the foot in its deformed position, is not that direct union may take place between the divided extremities of the tendon, and a material formed which may be subsequently elongated; but to insure perfect quiescence to the part, and thus diminish the chance of inflammation.

The knives which, in my opinion, are best adapted in size and form to the various operations of tenotomy, are represented in Fig. 42. I prefer the strong spear-pointed tenotome, the point corresponding to the centre of the blade, and the cutting-edge slightly convex, to the slender-pointed knife with a straight cutting edge, generally used at the Orthopædic Hospital. Slender points are apt to break in these operations, and this accident has occurred twice recently at one of the largest metropolitan Hospitals. The backs should be rounded and strong, and it is equally essential that the knives should carry a very sharp edge, and be well-tempered, requisites not easily obtained; but it will be found that a strong tendon easily turns the edge of an inferior knife, and I have frequently seen the operator obliged to change his knife in the course of dividing such a tendon. The knives represented were made for me by Mr. Bigg, of St. Thomas's-street, and fully support the well known character of the maker.

Fig. 42.



Tenotomy Knives.

A, B, C. Three sharp-pointed tenotomes. A is quite large enough for division of the tendo-Achillis in children, but in adults B is required. C is useful for a deep tendo-Achillis in a fat leg.

D. A scalpel used for opening the sheath of the posterior tibial tendon. The point should be rather more rounded and the blade not wider than Fig. B.

E. Blunt-pointed tenotome for dividing the posterior tibial tendon—drawn rather too narrow; it should be the width of Fig. B.

F. Tent-pointed tenotome. The point is blunt on either side, and should be rounded, though of angular form. It will penetrate cellular tissue, which E will not, and may be used with more freedom than the sharp point, where there may be fear of wounding vessels or nerves. It may be passed beneath the biceps tendon when displaced so as to lie over the peroneal nerve. Or with a longer blade it may be passed behind the sterno-mastoid muscle. Difficulty in forcing the round point through cellular tissue led me to adopt this form under some circumstances.

The anterior tibial tendon should be divided a little above its insertion, as it crosses the ankle-joint, the knife Fig. A or B being used, according to the age of the patient, and the point entered on the outer side of the tendon. This tendon can generally be easily felt, except in very fat infants, and in these cases more difficulty may be experienced than you might expect. The altered direction of the tendon to the inner side must be borne in mind, and when it cannot be felt with certainty, I have found the knife, Fig. F, very useful.

Method of dividing the tendons of the tibialis posticus and flexor longus digitorum muscles.—Having already given you an historical account of the different methods which have been adopted for the division of this important tendon, and stated that we now universally adopt the method first recommended by Dr. Little, it is only necessary for me to give you a practical description of this procedure, and a few hints which may be of service to you in performing this operation, which, in infants, is decidedly one of great difficulty. The first difficulty is in determining the exact point at which the puncture should be made; and the second is in satisfying yourself that the knife is really between the tendon and the bone, previous to making the section. In the leg of a fat infant, the inner malleolus can scarcely be well defined by the touch; but, if it can be made out, we puncture a little above it, just on the turn of the bone, where, in a severe case, the posterior tibial tendon is slightly prominent. There is no posterior edge to the tibia, as in a perfectly ossified bone; and, therefore, the exact point must be guessed. The altered relations of the tendon, which bear a constant relation to the severity of the deformity, as above explained, must be accurately kept in view. Take care to be forward enough. Taking the antero-posterior diameter of the leg, you may pretty safely puncture exactly in the centre, as described by Dr. Little, if the case be severe. Two knives are necessary—the scalpel, Fig. D., and the blunt-pointed knife, Fig. E. Thrust the scalpel straight down to the tendon, and, by a movement of the point, make an incision in the sheath, close to the bone. If you think this has been accomplished, withdraw the scalpel, and then enter the blunt-pointed knife, and be quite sure that you pass the point between the tendon and the bone. You must feel the knife locked, so that you cannot move it from side to side. If this sensation be not distinct, you may be sure you have missed the tendon. The knife should then be partially withdrawn, and used gently as a probe. In this way you may strike the tendon; and, if the blunt point will not pass behind it, the knife must be withdrawn, and the scalpel re-entered, to open the sheath. The blunt-pointed knife may then be again introduced, and will easily pass between the tendon and the bone. When you are satisfied that the knife is behind the posterior tibial tendon, it may be pushed a little deeper, with the object of including the tendon of the flexor longus digitorum, and then the cutting-edge must be turned towards the tendons, an assistant at the same time putting them on the stretch by everting the foot, or turning it towards its natural position. These tendons are often divided in this way, without any further movement of the knife, but a slight cutting movement may be required. The less the knife is moved, however, the better, for the sake of avoiding the posterior tibial artery, and the risk of subsequent inflammation. The posterior tibial artery is generally divided or wounded, when the point of the knife is moved about too freely, and lost in these movements to cut the tendon. I divided the artery several times before I arrived at this conclusion, but now it is an extremely rare occurrence with me. It is always a matter of uncertainty whether the knife has passed under the tendon of the flexor longus, as well as that of the posterior tibial; but though, in a severe case, it is very desirable to divide this tendon, it is of much less importance than the posterior tibial.

In the adult, and sometimes at younger ages, when the posterior tibial tendon can with certainty be felt externally, it may be divided with the sharp-pointed knife, which I have frequently seen done; but, as it is desirable to include the long flexor tendon, I do not advise this procedure. In infantile cases, it is decidedly dangerous and unsatisfactory, as compared with the method I have recommended.

Evidence of the division of these tendons.—An audible snap very rarely follows division of the posterior tibial tendon, either in the infant or adult; but a jerk, or sudden yielding of the foot, is generally felt by the assistant; so that, if the operator be in doubt, an experienced assistant may confidently assert that the tendon has been divided. Usually, also, a distinct vibration is communicated to the hand of the operator; and, if the long flexor has been divided, as well as the posterior tibial, a sort of double-click vibration is felt. This is the most satisfactory evidence to a practised hand, and may with certainty be relied upon, even when the assistant has not felt any jerk or sudden yielding of the foot, which may be prevented by the ligamentous rigidity. Either of these events, therefore, will be conclusive as to the division having been accomplished; but one of them must be distinctly present.

In adult cases of varus, in which the tendon is generally very superficial, and can be distinctly felt previous to the operation, a depression can be felt between the divided extremities of the tendon. This also occurs sometimes in children

and in infants when the leg is thin; but I need hardly say that this is quite the exception at young ages.

The difficulties connected with division of the tendons may be stated to arise from, 1st. The displacement of the tendons depending upon the deformity. 2nd. The difficulty in defining the situation of the tendons in the fat legs of infants; this applies especially to the anterior and posterior tibial tendons. 3rd. The abnormal insertion and distribution of tendons occasionally met with—such as the bifurcation of the anterior tibial tendon above described, etc. 4th. The abnormal distribution of the arteries. It once occurred to me to find, in a boy, aged 4 years, affected with varus in both feet, an artery of the size of the posterior tibial, pulsating exactly over the posterior tibial tendon in both legs. Mr. Lonsdale and myself discussed the propriety of attempting division of the tendon below the malleolus; but, from the severity of the case, the tendon could not be felt in this situation when the foot was everted. I therefore divided the tendon with extreme caution above the malleolus, and without wounding the artery in either foot.

Accidents connected with division of the tendons.—The following untoward events may occur, either at the time or as the immediate consequences of the operations I have described to you:—

1st. *Division of the skin, so as to make an open wound at the time of dividing the tendons.*—This is most apt to occur during the division of the tendo-Achillis, when adhesions to the skin exist after a previous operation. Under these circumstances, the usual indications of the division of this tendon, viz., a sudden jerk or yielding of the foot, and an audible snap, do not occur; and the operator, thinking the tendon is not completely divided, carries his knife forwards too boldly. In non-congenital spasmodic deformities, a risk of this accident occurs when a violent muscular contraction is suddenly induced, as I have witnessed on several occasions, during the operation; but then an experienced assistant ought to prevent the accident by restraining the flexion of the foot. If an open wound should be accidentally made, the foot should be instantly extended; the wound, covered with dry lint, retained in position by strips of adhesive plaster, and the foot bandaged in its extended position to a splint, applied in front of the ankle-joint; so it should remain for several days, unless pain and inflammation supervene. The wound will sometimes heal by the first intention, but very formidable inflammation and suppuration in the course of the tendon may occur.

2nd. *Suppurative inflammation in the sheath of the divided tendon and surrounding cellular tissue.*—This is most apt to follow the operations on the deeper tendons, especially the posterior tibial, because of the difficulty sometimes experienced; but I have never known it occur, except as the result of a clumsy operation. The well-known freedom from inflammation which characterizes subcutaneous operations, has led some Surgeons to think too lightly of these operations, and disregard the precautions necessary to prevent inflammation above-described. From such neglect, I have witnessed, in one of our largest Metropolitan Hospitals, suppuration extending up to the popliteal space in one instance, and half-way up the leg in another. The late Mr. Wilson, of Manchester, told me that he once amputated a leg at the thigh, in consequence of suppuration in the popliteal space following division of the hamstring tendons.

3rd. *Wounds of arteries.*—There are two important arteries in the foot liable to be wounded in the operations for varus, viz., the posterior tibial and the internal plantar arteries, both of which have been repeatedly wounded, and occasionally with very serious results.

a. *Wound of the posterior tibial artery.*—If this artery should be wounded in the operation for dividing the posterior tibial tendon, the accident will be at once indicated by the arterial jet from the wound, and by the immediate blanching of the foot. The latter indication may be relied upon when the arterial character of the hæmorrhage is doubtful, as sometimes occurs in fat children. Pressure must be immediately applied by means of a graduated compress and bandage, and maintained for two or three weeks, the pressure being modified occasionally to prevent slough, which occurred in one of my cases through the mother neglecting to bring her child to the Hospital. I have never seen pressure fail if well applied and attended to; and so much confidence in its success do I feel from having witnessed many cases—perhaps from fifteen to twenty in all—that I would rather cut the artery in a severe infantile case, than miss the tendon, without the division of which there is no hope of curing a severe case. When the artery is supposed only to have been punctured, it has been recommended to re-introduce the knife and completely divide it; but if the blunt-pointed knife be used, its division will, probably, be complete at the time of the accident.

b. *Wound of the internal plantar artery.*—This accident is apt to occur during the division of the plantar fascia, and as the sharp-pointed knife is used, the artery is more liable to be punctured than divided. It may, therefore, be safer practice to make complete division of the artery, although this plan has not been adopted in the cases in which I have seen the accident occur—all of them have been in children, and the artery has probably been completely divided at the time—and, with the immediate application of firm pressure, they have terminated successfully.

4th. *False aneurism.*—Mr. Tamplin, in 1846, relates two cases of false aneurism as having occurred at the Orthopædic Hospital up to that date, from puncture of the artery; "in both false aneurism was the result, and in both was it necessary to cut down upon and tie the vessel. The first was a puncture of the posterior tibial, and the other of the internal plantar artery, in a boy 11 years of age." The operations were very formidable, from the depth and small size of the arteries, but both cases terminated favourably. In my own practice I have had two cases in which a diffused pulsation was observed in a few days after the operation for dividing the posterior tibial tendon, and a small false aneurism had probably formed, but in both it was completely removed by well-regulated pressure; subsequently I divided the tendo-Achillis in each case, and both did well. A more defined pulsation occurred in a child operated upon by Mr. Tamplin about a year ago. I detected the pulsation in this case at the time when Mr. Tamplin was about to divide the tendo-Achillis. No external tumour had formed. Mr. Green happened to be present, and agreed as to the probable existence of a false aneurism. Division of the tendon was delayed, and the case treated by pressure. No diminution in the pulsation occurred for a long time, and I think the pressure was continued for three or four months. The pulsation had then entirely disappeared, and Mr. Tamplin divided the tendo-Achillis, and cured the deformity. The case remained well.

A less fortunate case occurred in my own practice. On April 13, 1853, I wounded (divided?) the posterior tibial artery in a child seven weeks old. The blunt-pointed knife (Fig. E) was used, and I was not aware of the accident at the time of the operation. As neither the arterial jet nor the sudden blanching of the foot indicated the mischief, the artery was probably only wounded. Ten days after the operation a deep pulsating tumour was discovered. Direct pressure by a graduated compress and bandage was applied, and the pulsation diminished, but a very small slough formed, in consequence of the pressure not being relieved for four days, from the neglect of the mother to attend, and a copious arterial hæmorrhage took place. Pressure a little above the aneurism appeared to command the bleeding, and was, therefore, tried, but was discontinued on the second day from the extension of the swelling to this part of the leg. A second arterial jet followed the removal of this pressure. On May 12, 1853, I injected from five to ten drops of the concentrated solution of perchloride of iron, as recommended by M. Pravaz, of Lyons, (h) into the centre of the aneurism, which was probably about an inch in diameter. At the time of the injection, loosely clotted blood plugged the small cutaneous ulcer, through which the extremity of a long and finely-pointed glass syringe containing the styptic was introduced and carried to some depth. The femoral artery was compressed by Mr. Lonsdale before the injection and for five minutes afterwards, so as to insure the blood acted upon being as nearly as possible in a stagnant condition, a most essential point. The first effect observed was that the loosely clotted blood filling the cutaneous ulcer became firmer, and that from ten to twenty minims of straw-coloured serum oozed through the ulcer, affording conclusive physiological evidence of the firm coagulation of the blood, which was also indicated by a general feeling of hardness over the sac. A piece of lint and light bandage were applied. On the next day the cutaneous

(h) An account of M. Pravaz's experiments and observations will be found in the Dublin Quarterly Journal for May, 1853, "On a New Method of Producing Instantaneous Coagulation of Blood in the Arteries. By Dr. Pravaz, of Lyons."

ulcer was seen to be contracted and plugged with a firm black clot. The surrounding skin, which, previous to the operation, had presented a tense, shiny, swollen, and slightly reddened appearance, was now pale, and less tumefied. The aspect of the limb was remarkably changed, and it seemed that a process of shrinking and contraction had commenced, and that no inflammatory results need be apprehended. Progressive improvement took place; the ulcer healed in a week, and shrinking and contraction advanced. On May 25, a deep, puckered cicatrix, and a little deep-seated induration alone indicated the former seat of the aneurism. The treatment of the deformity was then proceeded with; the tendo-Achillis was divided on June 1, and the restoration of the foot was in a few weeks as complete as in other cases. The operation of tying the posterior tibial artery in this case would, probably, have been fatal to the child, which was much exhausted by the hæmorrhage, and the limb was in a very unfavourable condition. The success which attended the injection of perchloride of iron has induced me to give you the particulars of this case, which has not hitherto been published, although it was read at the Medical and Chirurgical Society on June 28, 1853. Although I believe it was the first case of aneurism, and so far as I know, the only case up to the present time, treated upon this principle in this country, it was not thought to be of sufficient importance to be published in the Transactions of the Medical and Chirurgical Society; but, nevertheless, I would recommend you to adopt this method of procedure under similar circumstances. The styptic is a valuable one, if used under the conditions recommended by M. Pravaz. If brought into contact with blood only, its extraordinary coagulating power may be relied upon, and was admirably illustrated in the present case; but if applied to living tissues it is certain, from its caustic properties, to produce slough and inflammation—you might almost as well use strong muriatic acid. Surgeons appear to have employed this styptic in ignorance of the fact that it is an acid salt; it has always an acid reaction, and contains an uncertain quantity of free muriatic acid of the strongest kind. It has generally been used by drams instead of drops, and applied to vascular tissues, such as nævi, the surfaces of open wounds, &c.; and thus, while its caustic properties have been frequently, and, it is to be regretted, fatally, demonstrated, its valuable properties as a simple coagulant of blood have been entirely overlooked, and the remedy, by its misuse, brought into disuse.

In the next lecture I propose to consider the mechanical and after-treatment of talipes varus.

ORIGINAL COMMUNICATIONS.

SOME ACCOUNT OF RICHARD STEEVENS, M.D., AND HIS HOSPITAL.

By W. R. WILDE, M.R.I.A.

The Irish public, the citizens of Dublin, and the Irish School of Medicine, each and all, are indebted to members of the Medical Profession, far more than has ever been sufficiently acknowledged, either at home or abroad, and far beyond what any other city in the empire can boast of. For the three great monuments of the philanthropy of the past century, the erection and endowment of the chief national institutions of the metropolis, Ireland owes a debt of gratitude to her Medical men; for Dr. Steevens's Hospital, the Dublin Lying-in Hospital, established by Bartholomew Mosse, and the endowment of the School of Physic by Sir Patrick Dun, now in connexion with the Hospital which bears his name. Other minor institutions have existed, both in ancient and modern times, which owe their origin to members of the Profession, of which Jervis-street Hospital, the Lock Hospital, and the Charitable Infirmary (formerly in Nicholas-street) are examples. But although these have effected much good, they partake not of the character of those specified above. To judge of the beneficial effects of any institution, we should inquire into the state of society at the time when it was erected, the necessity for its creation, and the public benefits it has conferred.

Hospitals had existed in Ireland as early as the twelfth century, for the care and seclusion of persons affected with leprosy; but such institutions were intended more for the benefit of the healthy, than the cure of the sick. About the end of the twelfth, or beginning of the thirteenth century, Hospitals for the cure, maintenance, and treatment of the sick, were connected with some of the Irish monastic institutions, similar to that of the Priory of St. Bartholomew in London. One of these—the Priory of St. John in Thomas-street, Dublin—towards the end of the fourteenth century, contained as many as "150 beds for the sick." About the same time, the ancient records of the City tell us of several other Hospitals in the Irish metropolis either erected by the piety of the Church, or supported by the bounty of benevolent individuals; among these may be mentioned—the Hospital of St. Stephen, the Steyne Hospital, and Allen's Hospital, etc., together with the original establishment at Kilmainham; but all these institutions have long since passed away. Of the minor ones we have but scanty records; possibly their funds fell a prey to the corruptions of later times. Of the larger ones,—Hospitals which, if allowed to continue to the present day, would present characters similar to those of St. Bartholomew's and St. Thomas's in London,—we know that they were, at the time of the Reformation, when religious zeal gave a cloak to general confiscation and state robbery, broken up and deprived of their revenues, as they had not the advantage of an eloquent bishop to induce an ailing monarch to restore their rights. During the fifteenth and sixteenth centuries, the only records of public Hospitals which have come down to the present time refer to those intended for the treatment of the soldiery. At the beginning of the past century, Dublin was wholly unprovided with medical relief, except what could be had within the confines of the workhouse or the gaol, if, indeed, we can be sure of the latter. The chief Medical men at that time in the metropolis were the celebrated Sir Thomas Molyneux, Dr. Edward Worth, Dr. Grattan, the friend of Swift, Sir Patrick Dun, Richard Steevens, Helsham, and Surgeon-General Proby. Most of these gentlemen had studied abroad and taken their degrees in foreign Universities, for there was then no School of Physic in Ireland, and no Hospital in Dublin in which students could acquire a practical knowledge of the healing art. Of these members of the Profession, none are unknown to native history. Some founded families, distinguished in their generations, others left a record upon the tablets of science, and two in particular, Steevens and Dun, erected lasting monuments in the institutions which they founded and endowed.

With the exception of the Leper Hospital at Waterford, the property of which being vested in laymen, the confiscations of the Reformation could not touch, there did not, at the end of the seventeenth and beginning of the eighteenth century, exist a single Hospital in Ireland wherein the poor man could receive shelter or Medical treatment. Yet this state of the social condition of the country was not peculiar to Ireland; they were no better off upon the other side of the channel. The great historian of the day, in alluding to the want of Hospitals and Medical appliances for the hundreds of maimed and lacerated seamen, who reached England after the battle of La Hogue, says, "But there was not then in the whole realm a single Infirmary supported by voluntary contribution. Even in the capital, the only edifices open to the wounded were the two ancient Hospitals of St. Thomas and St. Bartholomew." From a condition similar to that Ireland was rescued by the bounty of Richard Steevens.

Like that of many other great philanthropists, we know but little of the life and private history of the founder of Steevens's Hospital, except that he was the son of the rector of Athlone, an English clergyman who fled to Ireland to avoid the resentment of Cromwell, against whom he had preached. Richard was originally intended for the clerical profession, and was even admitted into deacon's orders; but, having changed his mind, he "studied physic, in which profession he acquired, by his practice in Dublin, great eminence, and a large fortune." But for a manuscript history of the Hospital, "from its establishment in the year 1717 to the present time—1785," written by Mr. Samuel Croker King, one of the Assistant-Surgeons of that period, (of which I have long possessed a copy,) (a) and which was printed by the Governors of the Institution for the first time last year, we should know but little, even of the circumstances under which his bequest was made. Dr. Steevens does not appear to have held any professorship or official situation; and from an expression in

(a) I am indebted to Professor C. Croker King, of Queen's College Galway, for that document.

one of Sir Thomas Molyneux's letters, that he "had spent more money than ever Steevens made," I am led to believe the latter led rather a retired life, and acquired his fortune as much by frugality as by any other means. We have no record of his ever having published anything, either in Medicine or general literature; he never married, but lived with his twin sister Griselda, a lady of such retired habits that the popular opinion was, that she was so much deformed as to present the appearance of a pig's face; and, when a boy, I have paid a penny for looking into a "peep-show," in which a representation of Madam Steevens, with her pig's head, feeding out of a silver trough, was the chief attraction. Yet the half-length portrait of this good woman, which is still preserved in the board-room of the Hospital, beams with comeliness, intelligence, and benevolence;—but the story arose, in all probability, from her secluded habits. She lived to the advanced age of 93, and died in the Hospital in 1746. Still the public honoured Grissel Steevens, and appreciated her philanthropy, for to this day the Institution is always styled by the lower orders "Madam Steevens's Hospital."

When, says Mr. Croker King, in his manuscript account of the Hospital, Dr. Steevens "perceived his dissolution approaching, he inquired of his sister, if she had any thoughts of entering into the matrimonial state; for, if she had, he would leave her his fortune without reserve; but if she had not, he would devise it, after her decease, to found an Hospital for sick poor, he having observed, in the course of his practice, that many of them were lost for want of Medical assistance. This good design she encouraged him in, by promising never to marry, but to forward his charitable intention with all her power." Accordingly, he bequeathed a considerable estate by will, bearing date 14th December, 1710, to his sister for her life-time, and afterwards to found an Hospital. He died shortly after, aged 57.

Anxious to see her brother's good intentions executed in her life-time, she generously resigned the estate bequeathed to her, reserving to herself only £150 a year, with apartments in the house, and she added some additional trustees, among whom were Molyneux, Worth, Helsham, and Proby, members of the Medical profession. The trustees were afterwards incorporated by an act of the Legislature; and the spacious Hospital, which was erected at a cost of £16,000, and made capable of containing above 300 patients, was opened in July, 1733. In the mean time, several other benevolent persons still further endowed the Institution, among whom should be mentioned Primate Boulter, Bishop Sterne, and Hester Johnson, better known as Stella, who bequeathed her fortune for the endowment of a chaplaincy, and also Dr. Edward Worth, who left his valuable library to it. Worth was one of the first Physicians to the Hospital, and John Nicholls, at that time Surgeon-General, its first Surgeon; and since then, some of the greatest ornaments to the profession, either in the Medical or Surgical walk, were either reared in Steevens's Hospital, or formed a portion of its staff, among whom we may mention Drs. Helsham, Harvey, John Crampton, Sir Henry Marsh; and Messrs. Nicholls, Whiteway, King, Hartigan, Obre, Colles, Wilmot, and Cusack.

During the continuance of the apprenticeship system, which, if it was a monopoly, possessed at least the benefit of making good Surgeons, the great bulk of the Infirmary Surgeons of Ireland had been reared in Steevens's Hospital. About the year 1800, the Government took possession of some wards in the Hospital, which were used for the soldiery until the peace, when, the male portion of the Lock Hospital having been broken up, Mr. Cusack induced the Government to allow the £200 a-year formerly granted to the military wards to be allocated to the treatment of male venereal patients; and since then Steevens's has been the chief school for the study of these affections in Dublin.

All that Steevens's Hospital required to make it perfect was the establishment, in connexion with it, of a School of Medicine. The College of Surgeons having recently acquired a new charter, removed from a small building in Mercer-street to the present handsome establishment in Stephen's-green, and connected with itself a School of Medicine; the Senior Professor of Surgery, and the moving spirit in which, both as regards its counsel and its teaching, was Abraham Colles. But without the pale of the schools of the University and the College of Surgeons there was but little scope for teaching; and the private lecture-rooms of Crampton and Kirby could not be denominated Schools of Medicine. Feeling this position, and conscious of the growing wants of the Profession, some of the then aspirants for Medical honours in Dublin, to wit—the late Dr. Graves, Sir H. Marsh, Mr. Cusack, the late Mr. Wilmot, Dr. Apjohn, and Dr. Jacob, formed a proprietary fund, and built the School of Medicine in Park-street, an Institution that has conferred great benefits on the Dublin School of Medicine, and was for many years the nursery of the Professors of the Irish metropolis, among whom may be mentioned Dr. Stokes, Mr. Porter, Dr. Beatty, and Dr. Carlisle. As Park-street grew into importance, so as even to rival the school of the College of Surgeons, it became more and more the school of Steevens's Hospital. Had it been built nearer to the Hospital, and more internally associated with the Physicians of that Institution, it would, with its splendid pathological collection, and other appliances for practical and theoretical instruction, have survived to the present day.

Twenty years ago there resided in Steevens's Hospital about thirty pupils, of whom a third were the apprentices of Colles and Wilmot, and the remaining two-thirds owned Mr. Cusack as their master. These young men were of all grades of studentship, from the entered apprentice to the man going in for his degree; they lived anywhere and everywhere, in pupils rooms, and in holes and corners, as they could be best stowed away. Possibly the majority were idle; yet they learned, and that, too, by a mode not within the pupil's reach now. Steevens's Hospital was then the favourite of the Dublin public, and the great resort of accidents and operations; thus the accident bell rang, upon an average, every two hours, day and night; and upon each occasion the whole class, idle or industrious, rushed to the reception-room. There they saw—not as pupils' now see cases, "done up" and in bed on the morning visit of the Surgeon with whom they "walk" the Hospital—but in all their original freshness, compound fractures, severed throats, ruptured perinæums, extensive burns, injuries of the head, recent poisonings, lacerated wounds, crushed limbs, and, in the course of a few months, all the routine of Surgical practice. The Resident Surgeon or Clinical Clerk performed what was necessary,—took up the bleeding vessel, administered the stimulant, or procured the antidote. The appliances of art were put in requisition, and one of these young gentlemen was given charge of the case. With such a practical education, it was scarcely possible to avoid being, more or less, of practical Surgeons. Grinding, as it is now understood, was then only just coming into fashion: the manuals had not yet appeared; men read Hunter, Pott, and Hey, as well as Cooper's First Lines, and listened to the practical teaching of Colles, Carmichael, and M'Dowell.

During a period of many years Steevens's Hospital was the chief school of Practical Surgery in Ireland; "and," says Dr. John Crampton, in his admirable report upon the fever of 1817-18, "Steevens's Hospital was a favourite asylum to the sick poor of the city of Dublin since the year 1733." Again, in 1826, when fever raged epidemically in the metropolis, tents were erected in the laundry-yard of the Hospital, and afforded accommodation to a large number of cases. Thus upon several occasions, as a military hospital in time of war, as a Lock Hospital in time of peace, as a refuge for the fever patient in the day of national distress and epidemic pestilence, the government of the country has availed itself of the benefit of an institution which, from its construction and internal economy, has been so contrived that it can, at any moment or in any case of emergency, be turned to account as a national benefit; and for all this we are indebted to Richard Steevens.

CASE OF SPINA BIFIDA.

By F. S. B. FRANCOIS DE CHAUMONT, M.D.
Assistant Surgeon to 1st Battalion Rifle Brigade.

I was called at half past 4, a.m. on the 11th of October, to attend the wife of a barrack sergeant in camp. On my arrival, the second stage was found to have just begun, the labour went on naturally, and a male child was born at half past 9 a.m. The placenta came away about half an hour afterwards, and was apparently healthy. The head and upper parts of the body of the child were well formed, but the inferior extremities were quite paralyzed, and there was extreme talipes varus of the left foot, with slight talipes calcaneus of the right. On examining the back, spina bifida

was observed to exist. A tumour about the size of a small walnut was present, about the 4th or 5th dorsal vertebra, and had the appearance of a cyst of integument filled with serum. This was punctured, but as nothing but very bright red blood flowed from it, its evacuation was not favoured. Immediately below was another swelling, about three and-a-half inches long, and one and-a-half in breadth. This had ulcerated and burst before birth, and now discharged a small quantity of straw-coloured serous fluid. At both sides of the tumour, the edges of the vertebræ could be felt, and through the solution of continuity the membranes and vessels of the cord were visible. The skin of both tumours, especially at the edges, was covered with long dark hair, similar to that on the head. Water-dressing, and gentle pressure by means of a pad of lint, were used, and this was changed once in every two or three days.

The child seemed at first to do well, and took the breast with tolerable avidity, constipation being the only unusual symptom, and this was in a measure relieved by occasional doses of calomel and rhubarb. At the end of about ten or twelve days he became fretful and seemed in pain, whilst at the same time inflammatory action took place in the tumour, from which a more fetid discharge began to exude. Symptoms of cerebral derangement began to manifest themselves, in clasping of the hands, rolling of the head and eyes, constant fretful crying, and disinclination for the breast. The stools were dark green, and solid. A scrotal hernia descended on the left side about eighteen days after birth. On the 2nd of November (twenty-three days after birth,) he was seized with convulsions, and the right side of the face was paralyzed. From that time he became rapidly emaciated, the convulsions recurred once or twice, and death took place on the 4th of November at half past 8 a.m.

Permission to make a post-mortem examination was obtained with some difficulty, and the body was examined on the morning of the 6th instant, about 38 hours after death. An incision was made, commencing at the first dorsal vertebra, and carried round each side of the tumour, to the gluteal region, after which the integuments, including the tumour, were dissected off to the coccyx. The smaller tumour was found to be merely an integumentary cyst, the contents of which had degenerated into a greenish fetid fluid. The extent of spinal canal exposed measured three inches in length and about an inch and a quarter in breadth, and implicated the lower six dorsal and the whole of the lumbar vertebræ. Nothing of the medulla spinalis remained in this region, but some blackened disorganized membranes. The upper part of the cord ended about the fourth dorsal vertebra in a dot of pus. The posterior osseous wall was also quite absent in the canal of the sacrum, but its place was filled up by a strong fibrous structure, which extended quite down to the coccyx. The remains of a few of the lumbar and sacral nerves could be traced as they left the canal, but their origin had become quite disorganized, and disappeared in *débris*.

This case is interesting from the great extent of the deficient development, and from the fact of this existing in a frame which would otherwise have been considered well-formed and healthy. The child's parents appear both to enjoy good constitutions, and their only other child is a boy of three years of age, strong looking and large for his years.

Aldershott.

REMARKS
ON THE DEVELOPMENT AND DECLINE OF
THE FUNCTION OF MENSTRUATION
WHEN NOT IN CORRESPONDENCE WITH THE GENERAL SYSTEM.

By JAMES ALLEN, M.R.C.S.
Lecturer on Obstetric Medicine in the York School.

The phases of disease are so varied, that sometimes, by changing our stand-point, we extend our survey, and bring out different combinations, which may help to more distinct comprehension of the laws which regulate life and health. The following observations, on a class of diseases which are very common, I trust may prove interesting, as contemplated from a new point of view.

It is an undoubted fact, that the growth or development of parts is by no means uniform, regular, and consentaneous; and that, while we have clear and distinct laws of animal growth, in which we see at various periods the regular development of parts, and the organs by degrees becoming adapted to their functions, yet these are by no means uniform in their manifestations. It would form an interesting inquiry to ascertain how far these varieties, in their different combinations, influence the health of the subject; also, how, by their correspondence or incongruity, they give rise to varying phenomena.

In childhood we have fewer discrepancies than in youth; still, now and then, we meet with marked cases both of deficiency and precocity; in some, decided excess in the circulation, tending to affections of excitement; in others-defective powers of assimilation: in some, defective formation of bone, yet with no lack of muscular power; in others' power with no apparent will, etc. In youth, these examples are more palpable; here we may see growth in excess, generally without strength to resist external influences, and the subject succumbs to disease; excessive prolongation of limb, with narrow chest, or feeble digestive power, whereby the balance of health is soon destroyed. But the most marked are, where we have interesting cerebral development, at the expense of disease or deformity. We may have many examples of want of correspondence of organs in their development, until the subject arrives at that period when it may be said to have attained maturity.

The organs involved in the functions of menstruation are liable to this irregularity; but passing those extremes that partake more of monstrosities, I would notice such as occur about the ordinary periods when the uterine system does not correspond with the general system. Without attempting to particularise all the causes in which they originate, I may mention climate, habit, occupation, social and domestic circumstances, and individual idiosyncracies, or some morbid action retarding general or particular development.

We will consider those in which the general system takes the precedency, and, in our climate, I believe this to be the most frequent. Here we have the aspect of the woman with much of the artlessness of the girl, wanting the shyness so peculiar to puberty; good health is enjoyed until that period arrives when the system is so advanced as to require the call made upon it by the uterus in menstruation, but, development being incomplete, the system soon begins to feel the burden, and then we have a variety of affections. Diagnosis is here difficult, yet all-important; but where we can trace regular development up to a certain point, without the signs of puberty, then we must watch the character of the first aberration of health, and we shall find that slight but decided determination to some part, with excitement, will be the result; afterwards more decided changes appear, the plethoric condition of the vascular system in many is very prominent, and we have hæmorrhage, active or passive congestions, inflammations, etc. Where there is a strong constitutional diathesis there is danger of active disease being set up; and here, for practical purposes, it is of great importance to distinguish cause from effect, and to apprehend clearly how morbid influences act and re-act, lest we should prescribe for symptoms merely, and overlook the first link in the chain. Many strumous affections here have their origin, in organs or structures where congestion first sets up morbid action, and then, in some instances, this re-acts on the system to suspend or arrest further development. Therefore, in treatment we must be careful not to stop the regular development in our efforts to relieve the oppressed organs; when both have due attention we shall best succeed. There is one practical consideration needful in all cases, and that is, when the morbid action does not relieve the system to the right extent of the burthen with which it is surcharged, then our object should be to assist nature, and this may be accomplished best by small bleedings, from a few drachms to two or three ounces, and this repeatedly; and, when we have succeeded thus in arresting tendency to disease, we must relieve the system by small abstractions periodically, until nature relieves herself.

Under such combinations I would suggest a caution as to stimulants, or iron as an emmenagogue, lest you should further depress some oppressed organ by attempting to excite uterine discharge. In these examples of lack of correspondence, according to my experience, nothing equals small repeated bleedings, with very mild aperients.

When we meet with cases the reverse of these we have just noticed, where the uterine system takes the precedence, we have all the changes common to womanhood in manner and

bearing, with mammæ developed and other signs of puberty; but this generally with a stinted growth, and a puny and sickly aspect. The subject is characterized by great nervous sensibility, and is easily depressed both in mind and body. Here neuralgia in various forms is common, inflammations rare, and, if there is fever, it assumes a low type; not many strumous affections as the result, though sometimes spinal complaints. The regular menstrual discharge, so often hailed by mothers, is here an evil; and, while we should use no direct means to stop this, yet, if tonics and astringents do so, it is generally to the advantage of the patient; regular sluicing, with cold salt and water, is very beneficial, and whatever will invigorate and support the system should be adopted. I have a high opinion of malt liquor in such cases, not merely at meals, but given at stated intervals in measured quantities, as ordinary tonics. Cod-liver oil is here of great value; iron is questionable, but quinine and acids seldom wrong. All that can be done by nutritious diet must be attempted, with pure air and change of place when convenient. The great evil such cases exhibit is, that generally a stop is put to more perfect development, and then we have illustrations of ill-formed, disproportioned figures, for which I know no remedy.

The decline of life, like growth, has its irregularities as to degree in different organs, and, could we more easily distinguish where they first fail, quite independent of the influence of accident or disease during life, we should frequently be the better able to advise wisely for our patients. In some instances we see the digestive organs first fail; in others, the lungs, the heart, or the head;—all corresponding to the irregularities of development, which we should do well more carefully to investigate.

I would now call attention to a few of the circumstances which affect women on the decline of menstruation, when the uterine and the general systems lack correspondence. Without attempting to generalize, I would merely give what has more immediately fallen under my own observation. And, first, I would remark, I have seen more cases in which the uterine organs have first declined in power, than the system generally. In these examples we have a great variety of disorders, yet, when clearly distinguished as to origin, they are very manageable. The characteristic fact under these circumstances is, that the system becomes oppressed from a surcharge on the circulation, which the uterine organs can no longer carry off;—then plethora, local or general inflammations, or congestions, are the common result. Much has been written and said about the displacement and inflammatory theory, but I am persuaded that many of these disputed cases have their origin in hypertrophy, consequent upon the very condition just supposed; and congestion, not inflammation, produces these changes, which, when duly traced, will be found thus to arise; and the origin indicates the treatment. And here I hesitate not to affirm, that nothing will relieve the patient like regular periodic bleeding, and that, not necessarily from the os uteri, but, when leeches are employed, just within the labia pudendi; if by the lancet, two or three ounces every three weeks will do more than all other means combined; in fact, artificially unburden the system, and *vis medicatrix naturæ* will rectify all the evils if they have not been persistent too long. Functional derangement consequent upon this condition is most successfully treated by repeated bleedings to small amount, especially when the head and stomach suffer.

Another class of ills have here their origin, but are very different in their character; and mistakes, I believe, are common, viz., where you have repeated, irregular, large discharges of blood, as menstruation declines, from the fact of the uterine organs so failing in power as not to accomplish the healthy and due discharge; but from loss of tone the vessels are not able to bear the ordinary congestion and strain upon them, but yield irregularly, and pour out large and abnormal quantities, rendering them less able to resist in the future; and in many instances the patient is safe only when the system has been thus brought down to the level of the feeble uterine organs. In such cases a clear apprehension of the condition points to the treatment. These failing organs, when the subject of repeated determinations, no doubt often have degeneration of tissue, and this lays the foundation for organic disease. These large discharges differ from ordinary catamenia, not only in character, but in quantity, and especially in time. These combinations are, I believe, the source of most uterine diseases met with at this period of life; for, according to my experience, the continuance of menstruation beyond the due period is fraught with many ills to the system generally, but few to the organs themselves.

In examples where we meet with decline of the general powers of the system and the uterine being entire, we have the subject put on the appearance of premature old age, weak, languid, and rapidly-altered aspect; very nervous, but few cases of inflammation, or acute forms of disease. To sustain the system must be our object; cold bathing seldom answers, but change from place to place is very decidedly useful.

I have thus attempted briefly to point out some of the disorders consequent on the want of correspondence between the general and uterine systems, and believe in this way we get a solution of many of the phenomena attendant thereon, as well as having the best treatment indicated; I also feel assured this view assists us in the better understanding of many of the abnormal states of menstruation, at all periods, as—amenorrhœa, dysmenorrhœa, menorrhagia, sterility, etc.

All must admit "that, to arrange under new combinations what is already known to us, is often in itself a source of fresh knowledge, or a valuable means of correcting previous error."

In conclusion, I would express a hope that this mere outline may be suggestive to some to bring out more prominently all the features and combinations presented by this interesting class of affections.

York, November 5, 1856.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

GANGRENE OF PART OF THE TESTICLE AFTER LITHOTRITY.—RECOVERY, AND PRESERVATION OF THE GREATER PART OF THE GLAND.

(Under the Care of Mr. STANLEY.)

There is at present under Mr. Stanley's charge, in Abernethy Ward, an elderly man, who affords a very interesting example of sound healing of the parts after gangrene of a portion of the testicle. About eighteen months ago, *i. e.*, in February, 1855, he was under care, on account of stone, and had several lithotrity operations performed. After a fifth sitting, in which the stone had been freely crushed, he had on the fourth day an attack of retention of urine, and all the symptoms indicative of impaction of a fragment in the urethra. Great pain about the prostatic urethra attended the expulsion of an angular fragment, which soon followed. Swelling of the right testis almost immediately ensued, and also of the penis and prepuce. The swelling formed by the testis was throughout quite distinct from that of the other parts, and it was believed to be purely sympathetic, and dependent on irritation of the orifices of the ejaculatory ducts. There were no signs whatever of extravasation of urine. Subsequently an acute abscess formed, either in or about the testis, probably in it, which on being opened exposed the gland structure of the organ in a sloughy condition. Endeavouring to remove a grey slough with the forceps, Mr. Stanley drew out many yards of convoluted tubuli seminiferi. A poultice was applied, and the man was supported by a liberal diet. Although very ill for some time, he at length made a good recovery. It was not thought well to attempt any further lithotrity operations, and he accordingly returned to his home in the country so soon as the parts were healed. For about a year he remained tolerably comfortable, but the symptoms caused by the stone increasing in severity, he has now again come under treatment. He is in pretty good general health. There is a scar of considerable size on the right side of the scrotum, and it adheres, though but very loosely, to the testis. The remaining portion of the testis is, perhaps, about two-thirds the size of the other, and feels a little the more soft and flabby; but there is nothing about it which would, had the history not been known, have led to the inference that such an accident as that referred to had ever happened to it; indeed, some who examined its present condition were inclined to be incredulous as to the statement made, until referred to a published account of the first part of the case in our own pages (see *Medical Times and Gazette* for April 7, 1855, page 338). Local gangrene of the testicle is an occurrence of extreme rarity, as, indeed, is any form of sloughing of that organ. Much additional interest

also attaches to this case, on account of the opportunity for examination afforded so long afterwards; and we have, therefore, deemed it well worthy of a place in our Records of Surgery. The only other example of gangrene of the testis which has ever fallen under our notice was one which the late Mr. Ludlow, when House-Surgeon to Mr. Stanley, had under care, and which he recorded at length in his prize essay on the diseases of this gland. The same case is, we believe, also referred to by Mr. Curling, in the last edition of his work on the same subject.

KING'S COLLEGE HOSPITAL.

EXCISIONS OF THE SUPERIOR MAXILLA.

(Cases under the care of Mr. FERGUSSON.)

During the last few months Mr. Fergusson has had under care several cases which have involved the performance of that formidable operation, excision of the upper jaw. In the first of these, a girl, aged 16, in fair health, came under treatment on account of an osseous out-growth, involving the right upper maxilla and the malar bone. It was increasing in size, and caused much deformity. Its removal involved the taking away of almost the whole right upper maxilla, the anterior part of the floor of the orbit, and a large part of the malar bone. The only external incision made was through the centre of the upper lip. The operation was performed on June 21; it was not attended by much hæmorrhage, and the recovery was so rapid, that the girl left the Hospital well on July 29. An artificial support for the cheek was fitted, and the remaining deformity was very slight indeed. The next case was not so fortunate in its result, and was, indeed, from the first a very unpromising one. A soldier, aged 34, was admitted on account of an osteo-cephalomatous growth filling the antrum and involving the whole of the left superior maxilla. It was very large, indeed, and had been only of twelve months' growth. The entire bone was removed, and with it the growth, though it was a little doubtful whether the under part of the sphenoid bone were not affected by the disease. As in the former case, the only incision made had been through the upper lip. The removal had been accomplished by sawing through the palate bone, and then employing the lion forceps and strong cutting bone pliers. Not much blood was lost. The man sank into a feeble state after the operation, and death took place on August 1, the operation having been performed on July 26. At the autopsy pus was found in the glands and cellular tissue of the neck. A third operation of this class was performed on Saturday, its subject being a girl.

Whilst on this subject we may just advert to a case of much interest not long ago under Mr. Paget's care in St. Bartholomew's. The patient, a man aged about 40, had a large polypoid growth of questionable nature, which filled the left nostril, projected back into the pharynx, and from the distension of the cheek there was reason to fear also involved the antral cavity. What operative measures would have been needful for its extirpation could not well be said, but it was probable that some part of the maxilla would have to be removed. Mr. Paget advised an operation, but the man declined and left the Hospital to return into the country. Mr. Paget has since informed us that the whole of this tumour afterwards sloughed out. So complete was the removal of the disease, that the deformity of the cheek, nostril, etc., which had been considerable, entirely disappeared. Not long afterwards the man died of phthisis, but there had meanwhile been no return of the disease.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

SCROFULOUS DISEASE OF THE BONES OF THE HEAD—STRUMOUS CEREBRAL ABSCESS—DEATH—AUTOPSY.

(Under the care of Dr. COTTON.)

(Reported by John Sibbald, M.D., Resident Clinical Assistant.)

William Barwick, aged 18, single, shoe-maker, resident at Lambeth, native of Calais. Admitted July 28th, 1856. Sallow complexion, light hair, hazel eyes. Appearance of great debility. Height, 5 feet 2½ inches; weight 5 stone 7½ lbs.

General History.—Till within the last four months he was a sailor, being on the coasting-trade till his last voyage, which was to the west of Africa, where he remained two months. During this voyage he had bad food, the meat being all salt, and the vegetables few and bad; he had previously lived pretty comfortably. He has not been much in the habit of taking rum, or other alcoholic liquors. He cannot give any information about his hereditary predisposition.

Previous Symptoms.—He was quite well till he went to Africa. While there he had yellow fever, and did not recover till four months after coming home, *i.e.*, last February. In the end of April he gained sufficient strength to be able to work, when he went to his present employment. Soon after he was troubled by what he thinks was a decayed tooth, which caused an abscess on the cheek, which is not yet healed. In June he was admitted to St. Thomas's Hospital for the abscess, and while there he first observed his cough, which sometimes was so troublesome as to keep him awake at night, but was not accompanied with much expectoration or pain. He has not been subject to profuse night-sweats, though he perspires more at night now than formerly. He has not suffered lately from diarrhœa. Five teeth and several pieces of bone have come away by an internal opening in the maxillary abscess.

Present condition.—He complains of cough and debility chiefly. On probing the wound in the cheek, the bone, which is surrounded by great induration, is found very rough. Some thin, sanious pus exudes from the wound. Pulse is small, and about 75.

Physical Signs.—The respiration, at both apices, is harsher than natural.

He was put upon good diet, and olei morrhuæ ʒij., c. vini ferri ʒij., ter die, which was changed on August 23rd to olei morrhuæ ʒiij., c. syrup. ferri iodid. ʒj., bis die. He continued to improve in strength till September 2nd, when he had gained six pounds in weight, notwithstanding the formation of an abscess over the right temple, accompanied with considerable febrile disturbance. This abscess was found to communicate with the surface of the cranium, which was roughened. He complained of great fœtor in the discharge from the mouth, although no necrosed pieces were to be felt remaining in the jaw.

On September 5th, he was attacked with headache and vomiting, his skin hot and dry, but only slight increase in the rapidity of the pulse. He was treated with a calomel and rhubarb purge, which having only slightly affected him, and the symptoms not receding, it was repeated on the 7th. On the 8th, the bowels were freely opened, and there was an appearance of improvement. On the 10th, and afterwards, the following is the report in the Case Book:—

"Pain in head severe again, and somewhat circumscribed in the right occipital region. Vomiting continues. ℞ Hyd. chlorid. gr. ij., hac nocte; mistura rhei c. magnesia, cras mane. Emplastrum cantharidis, applic. nuchæ. ℞ Mist. ammoniæ effervescentis ʒj., quartis horis."

11th.—He passed a restless night, and pulled the blister off so that it has not risen. He is very drowsy. Pupils both sensitive to light. Pulse very slow but irregular. To have the blister carefully reapplied.

Vespere.—He is much more drowsy, and has paralysis and coldness of the whole of left side; the right pupil is not so sensitive to light. Pulse still rather slow and of moderate size. ℞ Hyd. chlorid. v. gr. statim sumendus. Habeat enema terebinthinæ.

Nocte.—He has become quite insensible, otherwise the same. Hirudines iv. post aurem dextram admoveantur.

12th.—His bowels were well opened by the turpentine enema, and the blister has risen, but he is still insensible. He was very restless during the night. Both pupils feebly sensitive to light. Other symptoms as before.

13th.—He continues much the same. He passes his urine in bed, and his bowels were opened spontaneously this morning; breathing not decidedly stertorous. Ordered to have a little milk and beef-tea administered at intervals.

14th.—Very restless, otherwise the same.

15th.—Appears more sensible to external impressions, pupils more sensitive. Left side warmer but powerless.

16th.—Had two or three convulsions last night. Died comatose this morning.

Sectio Cadaveris, September 17th, 31 hours after death.—Body emaciated, skin slightly tawny. Post-mortem rigidity slight.

Head.—Near the anterior superior border of the temporal

muscle, a roughened surface of bone about an inch square separated from the periosteum. On removing the skull cap the dura mater was roughened, and covered by coagulable lymph and pus on a spot corresponding to the external roughened surface of bone; the bone on the internal surface being excavated and rough. The dura mater is very adherent to the arachnoid along the superior longitudinal sinus, and the arachnoid granulations somewhat larger and more numerous than usual. There is very slight, if any, turgescence of the vessels of the pia mater on the surface of the brain. The substance of the brain in the hemisphere is softer than natural. The lateral ventricles distended with fluid, about ℥iij. each, slightly turbid; the lining membrane of the ventricles opalescent. The choroid plexus paler and less conspicuous than usual; optic thalami and corpora striata soft but otherwise natural. The pineal gland contains none of the calcareous matter usually found in it.

On the under surface of the brain there is a drachm or two of pus lying between the dura mater and brain, on the anterior surface of the pons varolii and in the interpeduncular space. A cyst about the size of a nut, and containing cheesy matter soft in the centre lay on the right crus cerebri, and a larger cyst filled with pus lay embedded in the convolution of the Sylvian fissure at its anterior part. The dura mater lining the base of the skull was separated from the bone by a small quantity of pus over a space about a quarter of an inch square, on the surface corresponding to the cyst beside the fissure of Sylvius, *i.e.* near the foramen spinosum, the bone being carious at that part. The dura mater was softened on the anterior part of the basilar process, and over the sella turcica. The posterior clinoid processes and surrounding bone being friable and carious. The frontal and sphenoidal sinus did not contain any pus; but the pharyngeal surface of the basilar process was roughened. The brain weighed 40 oz.

Lungs.—Both congested, and containing a few small tubercles near the apices, some containing calcareous matter in the centre. Right lung weighed 1lb. 2oz. Left lung, 11oz.

Heart. — Clot in right side. Foramen ovale admitted a goose quill; weight 8oz.

Liver.—Healthy; weight 46oz.

Spleen.—Healthy; weight 7½oz.

Right Kidney.—Healthy; weight 4oz.

Left Kidney.—Healthy; weight 4½oz.

HOSPITAL NOTES.

Recurrent Fibroid Tumours in connexion with Tendons.—A very interesting case was submitted to operation by Mr. Wordsworth, at the London Hospital, last Thursday,—an example of a very rare class of morbid growths. The patient, a woman of 30, had, in her right palm, just in front of the metacarpo-phalangeal joint, a flattish mass, the size of a crown-piece, and about half-an-inch in thickness in its centre. The skin was smooth and polished over it, and adhered most closely, the whole having much the appearance of a thickening, the result of pressure, though unusual in its amount. Some suggested that it might prove to be an almost solid ganglion. The opinion as to its nature entertained by the operator, and by most present, was however the one which proved correct. On cutting it across, it was found to consist of dense greyish fibrous tissue, having a defined margin, but adhering most closely to the skin above and the sheath of the tendons below. So intimate were its connexions to the latter, that it was deemed best to remove the finger through the lower part of the metacarpal bone. The opinion that the disease would prove to be of the recurrent class was grounded upon the fact of its close connexions with adjacent parts, and partly on its close similarity of structure with others known to have proved so. We have seen two or three similar ones in connexion with the thecæ of tendons. One has been, during the last few years, several times under the care of Mr. Cock, in Guy's, on account of recurrences, its seat being the anterior part of the sole of the foot. In that case, also, the patient is a young woman.

Cases of Ulceration in the Pharynx and Palate, questionably Syphilitic.—Some attention has been excited amongst the London Profession by Mr. Coote's recent paper on ulcerations of the throat not dependent on syphilis. The opinion advanced by him, as many of our readers will remember, is, that cases of very extensive ulcerative destruction of the palate, etc, occur quite independently of syphilitic taint, and that these are analogous to certain affections of the throat occurring very commonly in the East, and constituting a form of leprosy. Mr. Ward has mentioned to us a case in which a gentleman under his care in private has suffered from a very intractable form of spreading ulceration in the pharynx, there being no reason to suppose him the subject of syphilis. Our attention was recently directed to a case supposed to be of this class, under Dr. Richardson's care at the Metropolitan Free Hospital. The patient, a woman who had been married eighteen months, and who stated most positively that she had never at any period had sores on the genitals or rash on the skin, presented herself with ulceration of the palate, which, in the course of a few weeks, destroyed the central three-fourths of the soft palate as far forwards as the edge of the bone. In spite of this history Dr. Richardson decided to treat it as syphilitic. A course of iodide of potassium was most specific in its effect, and procured its speedy arrest and healing. On more careful questioning at a subsequent period she admitted, that about eight months before she had had an enlargement of the glands in the groin, still, however, denying positively having had sores in the genitals. About the time that the disease in the throat commenced she also for the first time became pregnant, circumstances both of them pointing to the possibility of syphilitic taint. It is surely of great importance in this class of cases to try at any rate the influence of specific measures without regard to the history of the case. In many, we doubt not, the result of such treatment would clear up the diagnosis.

Compression-Treatment of Aneurism.—An interesting case of double popliteal aneurism is now under Mr. Bowman's care in King's College Hospital, in which, for the larger tumour, the compression-treatment is being pursued. The patient is a healthy looking farm-labourer, aged 30. He first noticed a beating swelling behind his left knee, about four months before admission, and at the time of his coming into the Hospital it had increased to the size of a small orange, and filled the popliteal space. The tumour on the right side is not larger than an egg, and was not found until a week after admission. In addition to these evidences of arterial disease, he has also a bruit over the heart's apex. It is of interest to note that instances of symmetrical aneurism, when they do occur, not unfrequently happen to those below the average age. Thus a man under Mr. Stanley's care about six years ago, in whom an aneurism in each popliteal space was cured by compression, was aged only 29. In another case under that of Mr. Solly, in St. Thomas's, in which the man had a popliteal and two (symmetrical) femoral aneurisms, the age was 30. And in a fourth, under Mr. Fergusson's care in King's College, the man, who was the subject of double femoral aneurism, was aged only 36. With regard to the success of the compression plan, in Mr. Bowman's case it has now been pursued for rather more than three weeks, and with the result of considerable solidification having ensued, although, as yet, the size of the tumour is not much diminished. The man bears it well, and is in good spirits. He sleeps with the tourniquet on, but often finds it displaced on waking.

Removal of the Cilia, in Cases of Lippitudo, etc.—The cure of the more severe and intractable cases of lippitudo by the entire removal of the eyelashes and their bulbs is a practice which has come of late years into much favour with our Ophthalmic Surgeons In these cases, the lashes have generally become so stunted and irregular as to cease to be an ornament, and often more or less of inversion exists. Two such cases, in children of the ages of about 10 and 12, have been operated on by Mr. Critchett at the Moorfields Hospital during the past fortnight. In each the cornea had been made opaque by the constant rubbing upon it of the inverted and broken lashes. The disease in each had been syphilitic tinea tarsi (hereditary). The operation to one who had never seen it done might appear as if, from its delicacy, the moveableness of the lid, etc. not very easy in its performance. It is, on the contrary, very simple, and may be quickly done. The lid being steadied on a curved bone spatula, of sufficient size to distend and fix it, with a sharp knife an incision, parallel with the lashes, is carried on their ocular side the whole length of the lid. This having been made to sufficient depth, the skin is divided above, and the flap, a few lines in width, and including scarce anything but the cilia and their roots, with some meibomian follicles, is removed. There is no

necessity whatever for the introduction of sutures, or for resort to any other means of securing coaptation. In a week's time all is healed, and a mere linear cicatrix is all that remains. The operation is a most useful one, and the amount of benefit which it confers is often very great indeed.

Expected Operations.—On Saturday next, the 6th inst., at St. Bartholomew's, the following operations will probably be performed :—By Mr. Lloyd, the removal of a bony growth connected with the lower jaw. By Mr. Skey, the excision of an elbow-joint and a perineal section. At St. Thomas's Mr. Simon has an excision of the elbow-joint. At King's College there is an excision of the knee-joint by Mr. Bowman ; and at Charing-Cross Hospital an excision of the head of the femur, and probably of a portion of the acetabulum, by Mr. Hancock.

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Medical Times & Gazette.

SATURDAY, DECEMBER 6.

THE SUPERINTENDENCE OF THE INSANE.

In a late article on this subject, we pointed out some of the existing defects in the management of Lunatic Asylums, and in the constitution of the power which controls and regulates the treatment of the insane.

It would be highly unjust not to admit that the Commission of Lunacy has, in many respects, accomplished good and useful reformations. Guided by the labours of members of the Medical Profession, who have justly regarded insanity as a morbid, but not necessarily incurable condition of the human faculties, the Commissioners have discouraged the employment of all means of mechanical restraint, and, except where it is actually necessary for the preservation of life and property, have recommended that the insane patient should be treated upon the same principles as any other sick person.

In promoting this change, the Medical Profession has exhibited not only the utmost humanity and science, but the most liberal disinterestedness ; for the lunatic patient was to his doctor what the negro slave was to the colonist, a kind of property on which he might rely as a continual source of income ; and yet, by the efforts of our Profession, which was deeply concerned in the perpetuation of the abuses, have those abuses been exposed, and in great measure reformed. Yet, how have the members of this same Profession, which has shown so remarkable an instance of self-abnegation, been treated under the new arrangements ? Instead of being placed, as they ought to have been, in prominent positions of honour and emolument, they have been set aside, in the constitution of the Commission, by hungry barristers, who know nothing and have written nothing upon the treatment of insanity ; and, what is much worse, Medical men, when appointed as Superintendents of Lunatic Asylums, have been ground down to the lowest minimum of salary, and deprived, as far as possible, of all controlling authority. We do not charge this latter injustice to the account of the Commissioners, who, to speak truth, have repeatedly urged the necessity of giving greater pay and more authority to the Medical Superintendents of Asylums.

In many respects, and especially in reference to the interests of psychological medicine and the treatment of the Medical Profession, the Commission in Lunacy has disappointed public expectation. The pathology of insanity has certainly made considerable progress in late years, and the practical treatment of the malady, as we have above stated, has greatly improved ; but in what respects, we may ask, has the Commission promoted the diffusion of sound knowledge upon psychological matters among the Profession and the public ? The great hospitals for insanity, Hanwell and Colney Hatch, in the vicinity of the Metropolis, are almost useless as schools of instruction, and their Medical Superintendents are too hardly worked and too badly paid to render it possible for them to communicate the results of their experience to the rising members of the Profession. The same reasons are amply sufficient to account for the few contributions to psychological science which are afforded from the practice of those two vast establishments. The Medical staff of such great hospitals ought to be largely increased, and the salaries of the Medical officers proportionally raised ; and pupils should be invited and encouraged to attend the practice, with a view to educate a class of men who will hereafter be called upon to minister to the maladies of the human mind. It is, indeed, wonderful that, with abundant materials for its establishment, no school of psychological medicine exists in this country, and no special opportunities are afforded for acquiring a knowledge of mental maladies. Surely, one of the duties of the Lunacy Commission ought to be to advocate, and, if necessary, to enforce the institution of lectures and practical instruction to pupils in our great lunatic asylums ; and, by offering prizes or other rewards of merit, to encourage in the rising generation of Medical students a zeal for the pursuit of sound knowledge in all that relates to the treatment of the insane.

While the Commission has thus neglected the duty of encouraging the clinical study of mental disease, and thereby of promoting the diffusion of sound views upon the management of insanity, there is very little for which the members of our Profession have reason to be grateful as regards the treatment of our Medical brethren at the hands of the Commissioners. Witness the case of Mr. Snape, so satisfactorily settled by the Surrey magistrates.

In reference to this and other similar cases we cannot but advert, in terms of the highest reprobation, to the unconstitutional and un-English method adopted by the Lunacy Commission in conducting their inquiries. Instead of an open and fair investigation of alleged abuses, it has been the practice of the Commission to receive evidence from any quarter, however suspicious ; and the Medical Superintendants of Asylums have on too many occasions been subjected to unmerited reproach upon the evidence of discharged servants, whose testimony has afterwards been found to be worthless. Investigations have been conducted in secret, although character and reputation have been seriously endangered by the results, and the accused person has frequently been wholly unaware of the offences of which he has been charged, or of the character of his accusers, until his name has been published in a Parliamentary blue-book, or he has been arrested upon a criminal indictment. Such a system of Star-Chamber persecution awakened the indignation of our ancestors, and it is intolerable that it should be revived in our own times.

We repeat, that it is essential that the Medical element should be more largely introduced into the Lunacy Commission, inasmuch as it is by the labours and the writings of Medical men that real improvements are to be anticipated in the management of the insane; that the present number of Medical Commissioners is wholly insufficient to meet the wants of the present period, and to visit effectually the private and public asylums of this country; and that by the present paucity of Medical Commissioners, not only is the due Medical supervision of Asylums necessarily neglected, but the improvement of Medical education, so far as regards psychological pathology and therapeutics is most seriously impeded.

THE WEEK.

We have received several letters on the subject of the University of London Examinations. For the most part those writers who take a different view from that held by ourselves upon this question, have simply urged that the degrees of this University would be unduly depreciated by any reduction whatever in the standard of requirements. They have failed, however, adequately to support this opinion, or to show the incorrectness of our suggestion, that the present exorbitantly high standard of examination obstructs the usefulness of the London University, and bids fair even to render nugatory the intentions of its founders, which clearly were not to afford its degrees exclusively to prizemen. The pass-lists, referred to in our previous remarks, unanswerably bear testimony to our inference that only the *élites* of the schools can hope to attain the *ordinary* degrees. For men of this class the *Honours* of the University were intended. Our suggestion was not to lower the examinations below what would necessitate high attainments and secure distinguished graduates.

The Guardians of the Frome Union have advertised a vacancy for a Medical Officer in one of their districts, and have announced that the election will take place on the 16th instant. It may not, perhaps, be generally known that the vacancy has arisen from the fact that a gentleman who has held the office to the perfect satisfaction of all parties for twelve years, has been compelled to resign his post; in consequence of the refusal of the Guardians to increase his very limited and inadequate salary. It seems that Mr. Cockey, the Medical gentleman in question, has drawn up an account of his services and his salary, by which it appears that he has received 4*s*. 3½*d*. per case; that the extras mentioned in the advertisement realize 1½*d*. per case; and that the vaccination-fees altogether amount to £6 per annum. Mr. Cockey has recorded, in a letter to the Board of Guardians, that "he has ridden or driven 10½ miles daily for 246 days," at which rate his journeys would amount to 3832½ miles in the year, and comparing these journeys with his salary, he would be remunerated at the rate of 3¾*d*. per mile. The expenses attendant upon keeping a horse and a man may, at a most moderate computation, be set down at somewhat about £80 per annum, and the whole of the salary of Mr. Cockey does not reach this amount! These facts have been all respectfully laid by Mr. Cockey before the Board of Guardians, with a request for an increase of salary, to which request the Guardians have returned a direct negative, and Mr. Cockey has accordingly resigned his office. Now it is most essential, especially at the present moment, when the grievances of Poor-law Surgeons are under the consideration of the Legislature, that no respectable Medical gentleman should apply for the vacant post, otherwise the members of our Profession may verify the bitter taunt uttered during the last Session of Parliament by the President of the Poor-Law Board, that "whenever a vacancy occurs, there are plenty of men willing to take the vacant office. Why, then," continued the President triumphantly on that occasion, "should the Poor-Law Board increase the salaries of the Medical Officers?" We hope, for the sake of the respectability of the Profession, and for the sake of a successful issue to the great cause in which Mr. Griffin and others are engaged, that no Medical gentleman will offer himself for the vacant post. From the facts which have been detailed, it is evident that the duties cannot be undertaken except at a pecuniary loss; and the acceptance of the office, under present circumstances, must not only entail a positive personal sacrifice, but must tend to bring discredit upon our common Profession.

A Metropolitan rate of a halfpenny in the pound for seven years, with a Parliamentary grant of £50,000, would give us the proposed new Park, of 300 acres, for Finsbury. Lord Palmerston has promised that the Government will recommend the grant to Parliament in the event of the passing of the Bill. The effects upon our population of the modern great-city system are becoming so marked, the inhabitants of our large towns are so evidently undergoing a constant process of physical deterioration, that every attempt to assimilate the conditions in which they exist to those of the rural population should meet with the warm and earnest support of the Medical Profession, and we trust that our brethren will do their utmost to add another lobe to the lungs of London.

Poor-law Guardians in all parts of the kingdom seem to be affected with the same species of monomania—a desire to reduce the salaries of the Medical Officers of the Union. This week we have to notice an attempt made by the Poor-law Guardians of the North Dublin Union to reduce the salaries of the Dispensary Medical Officers of the district from £100 to £75 per annum. A Mr. Dixon, with whom the proposal originated, supported it by the argument, that in England the Physicians and Surgeons of Hospitals and County Infirmaries were glad to work without salary, and were remunerated by an improved social and Professional position. He did not say how far the position of Medical Officer to a large Hospital resembled that of a Union Surgeon. The duties in the North Dublin Union were stated by Dr. Brady as follows:—During the year ending September, 1856, the Medical Officers of the Union had made, according to his calculation, 68,913 visits to the poor of the district, which gave an average of 11,435 visits for each officer. And although they were nominally occupied for only an hour and a-half, they were frequently, he might say almost constantly, kept in the Dispensary for four hours; and Mr. Flanagan showed that £150, the reduction which would be effected by diminishing the salaries, would not amount to more than a fraction of a penny in the pound on the valuation. We are happy to be able to add, that the motion was lost by a majority of 14 against 4.

The reply of Dr. Lees, of Dublin, to the charge of plagiarism brought against him last week will be found among our General Correspondence. The only remark we have to make on the matter is with reference to Dr. Lees' expression as to the charge being *unfounded*. That it was not unfounded is evident from the fact that the accuracy of the transcripts of the long passages we gave in parallel columns is unimpeached. Dr. Lees admits that he did adopt Dr. Brinton's words, and he considers that he made sufficient acknowledgment. We must leave our readers to judge how far this explanation is satisfactory. Any correspondence as to the curious manner in which, in some cases, Dr. Lees anticipated Dr. Brinton, we had better leave to the gentlemen them-

selves. It is hardly necessary to add, that we took up the question entirely on public grounds, and are quite disposed to credit the statement of an esteemed Dublin correspondent, that "Dr. Lees is highly respected by all who know him, as an enthusiastic cultivator of Medical Science, a diligent, patient, and laborious accumulator of facts, and, withal, a perfect gentleman; and, however appearances may have been against him, quite incapable of a dishonourable act." Still the "appearances" were "against him." In the performance of a public duty we made this known; and all we can say now is, Let Dr. Lees' explanation be as carefully examined as the charges made against him.

An interesting subject for discussion was started by Dr. Theophilus Thompson, at the last meeting of the Medical Society of London, namely—"The Effects produced on the Blood by Mental Labour." His view is, that overwork of the brain occasions deterioration of the blood; and he adduces instances in which sleeplessness, and loss of mental power following over-exertion, were associated with jugular murmurs, and a remarkable deficiency of the white corpuscles in the blood, there not being a fourth of the average proportion of health—all this without muscular debility or impaired digestion, but with oxaluria to a slight extent. Dr. Thompson thinks that the wear and tear of inordinate and anxious work acts as a succession of shocks through the nervous system, and he believes that sudden and violent shocks, as in railway collisions, produce analogous results. He adduces a remarkable case from the practice of Sir Henry Marsh, in which a young lady who had accidentally poisoned her father, died with an entire change in the condition of the blood, without any other organic disease. There is a wide field for further investigation here, for, as Dr. Thompson says, there is a possibility of the hereditary transmission of the physical conditions induced by inordinate mental labour, and the present tendency to overwork the brain may prove unfavourable to the production of great men.

The contested election for the Assistant-Surgeoney at the Ophthalmic Hospital has ended by the election of Mr. Streatfield. The numbers polled were: for Mr. Streatfield, 214, for Mr. Hulke, 149, for Mr. Tyrrel, 94, and for Mr. Gamgee, 3. It is quite clear from these numbers alone, not from anything we may know or surmise as to the merits of the four gentlemen just named, that the battle was not decided by Professional ability, but by electioneering tactics. Of the four hundred and sixty governors who voted on this occasion, but a very small proportion could know much, or anything, of the abilities of the candidates, and each of these candidates was driven to the distasteful task of a public canvass, derogatory to them all as members of a learned Profession. This evil is not peculiar to the Ophthalmic Hospital. In nearly all our Hospitals the Governors who support the institution are saddled, in many cases, very unwillingly, with the duty of electing the Medical Officers, a duty for which they are, in the great majority of cases, utterly unqualified. The remedy is very simple. The Committee of Management should be very carefully selected by the Governors, and should be entrusted, in conjunction with the Medical Staff, with the duty of filling up all vacant Medical appointments.

Not the least strange of the occurrences of the past week is the elevation of a member of the Royal College of Surgeons, and a licentiate of the Apothecaries' Company, to the bench of Bishops. The Rev. Robert Bickersteth, the new Bishop of Ripon, after going through the usual course of Medical study at S^t. Thomas's Hospital, and obtaining the diploma of the College, and the licence of the Hall, determined to leave the Medical Profession, and to enter the Church. He is now, at an age but little above 40, a member of the House of Peers, after having held lucrative livings at Clapham and St. Giles's. He is not the first of the family of Bickersteth who have attained a seat in the Upper House after having entered and relinquished the Medical Profession. The late Lord Langdale, uncle of the new Bishop, set the example in the law which the nephew has followed so successfully in the church.

We find the following observations in Henke's *Zeitschrift* (the highest authority in Germany in these matters), prefixed to an abstract of Palmer's trial. They have their share of truth:—

This trial has, through the medium of the daily press, been made as familiar to the German public as was the famous Bocarmé trial in Belgium; but whereas in the latter case the experts conducted their investigations, and delivered their testimony with great exactitude and circumspection, Palmer's trial presents a very sad picture of the carelessness of the experts, and of the superficial, or even frivolous, procedures employed for the detection of the poisoning, and for the foundation of their opinions. They were involved in such contradictions, that, at last, in place of unprejudiced seekers for truth, they became mere party witnesses, and lost almost all credit with the jury. This was the more to be deplored as some of them were men of scientific eminence; but, in fact, the blame is not so much attributable to the individuals as to the peculiarities of the English jurisprudence, which, however much it may deserve preference to ours in some respects, is wanting in all formal rules for the medico-legal inspection of dead bodies, and for the drawing up and justification of the judgment arrived at by the experts. In England there is no medico-forensic body empowered to examine and control these judgments. The coronerships offer no compensation for the want of such a body, and are characterized by many defects. Such defects became very glaring at Palmer's trial; and as in the exercise of medicine in general, so especially in its medico-legal aspects, a reform suitable to the age has become urgent. But John Bull's conceitedness tells him that that which he does must be best; and it will require a good deal to make him admit that he has yet to learn much in these matters from abroad.

Mr. Andrews, who has been so favourably known to the Profession by his portraits of Sir James Clark, Sir John Forbes, Dr. Carpenter, Mr. Fergusson, etc., has recently exhibited at the Royal Academy a most excellent oil-painting of Mr. Newnham, of Farnham, from which an engraving has been produced by Mr. Atkinson, in the best style of mezzotinto. We feel quite sure that many of our readers will be glad to know that they can procure a likeness of the amiable and enthusiastic supporter of the Medical Benevolent Fund. We have been informed that the painting can be purchased for the moderate sum of fifty guineas, and our chief object in noticing this portrait is to suggest that a good opportunity is afforded for paying a compliment to one of the most estimable members of our Profession just as he is about to retire from practice, by presenting his portrait to his family. We shall be happy to receive the names of any of his Professional friends who are willing to follow up this suggestion, or they may be addressed to the artist, 19, Sloane-street, from whom the engraving may be obtained.

Few members of our Profession have more richly deserved the honour of knighthood for their recent public services than one upon whom it was conferred last Saturday—Dr., now Sir, W. B. O'Shaughnessy. When this gentleman first entered the service of the East India Company, he took with him a well-founded reputation for chemical knowledge, and very soon after his arrival in Calcutta he was appointed Professor of Chemistry in the Medical College there. He then brought out a Dispensa-

tory for India, containing a great deal of original information on the Medical botany of the country. When it became necessary to organize a system of electric telegraph in India, the task was entrusted to Dr. O'Shaughnessy; and it was owing to his ability and energy that the system has been so largely and successfully established, 4000 miles having been completed, and the seats of government having been brought into instant communication with the most distant parts of the empire. It was upon the strongest representations of Lord Dalhousie that the honour of knighthood was conferred, and we trust that other suggestions of the noble Lord will be equally well received, and that we may have to congratulate Sir William upon his enrolment among the Civil Companions of the Bath as a reward for what the Governor-General and Council so justly term his "ability, energy, and unflagging exertions."

REVIEWS.

Principles of Medicine. An Elementary View of the Causes, Nature, Treatment, Diagnosis, and Prognosis of Disease. With Brief Remarks on Hygienics in the Preservation of Health. By Charles J. B. Williams, M.D., F.R.S. Third Edition. 8vo. Pp. 602.

The well-known and highly-esteemed work of Dr. Williams appears in its present form very considerably enlarged, and revised throughout. The most recent investigations in Physiology and Animal Chemistry have been laid under contribution, and the chapters on Diseases of the Blood and on Inflammation have been enriched by important microscopic communications from Mr. Gulliver. Dr. Williams has proposed to himself, in writing this work, the very difficult problem of explaining on rational grounds the connexion existing between healthy and diseased structure, and the effects of remedies in arresting or curing morbid action. Most writers of the present day have abandoned this problem in despair, not because the materials for the execution of the task are too scanty, but because they are too abundant, and because, amidst a multitude of facts and theories, it is exceedingly difficult to disentangle the true from the false, and to reconcile circumstances which appear to be conflicting with one another. The opposite, and yet equally successful modes of treatment, adopted by different authors, and in different countries, or by the same author, and in the same country at different periods, puzzle the philosophic Physician who desires to invent and expound a rational theory of medicine; and it is not giving too high praise to Dr. Williams when we state that, if any Physician were capable, by the extent of his observation and experience, to grapple with and overcome so mighty a difficulty, Dr. Williams might be selected for the task. Most theorists have been persons who have meditated in the solitude of their study, and have endeavoured to reconcile existing facts with preconceived dogmas; but Dr. Williams is thoroughly practical in all his views, and diligently collects a basis of facts on which to rest his theories. The nature and scope of the work render anything like an analysis impossible in the space at our disposal; but we may say that Dr. Williams's present edition may be consulted with pleasure and profit by any one who wishes to bring up his knowledge of the principles of Scientific Medicine to the level to which it has been advanced by the rapid progress of the collateral sciences during the past few years.

As Dr. Williams's name has been extensively associated with the employment of cod-liver oil in the treatment of tubercle, it is gratifying to find that, as the result of a large experience of this remedy in nearly nine thousand cases, his confidence in its efficacy is confirmed, and he thus expresses himself upon this point:—

"The limits of this work prevent me from entering into further details on the use of cod-liver oil in particular diseases: but with regard to pulmonary consumption, after further experience in several thousand cases, I do not hesitate to repeat a statement which I published seven years ago, '*that the pure fresh oil from the liver of the cod is more beneficial in the treatment of pulmonary consumption than any other agent, medicinal, dietetic, or regimenal, that has yet been employed.*' The amount of good wrought by the oil varies greatly; in some cases being very slight and transient; in others, equally decided and lasting; in some it only lessens and retards the progress of the disease; in others it arrests it and effects a cure more or less permanent. The average duration of life in pulmonary consumption was by Laennec and Louis reckoned at two years. So far as I have been able to estimate by a hasty calculation, this average is prolonged to four years by the aid of the cod-liver oil and other means."—P. 487.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE PHYSIOLOGICAL EFFECTS OF ALCOHOL AND TOBACCO.

Dr. Hammond, in this paper, furnishes the results of some series of investigations he took upon himself in order to elucidate the part which alcohol and tobacco perform in the metamorphosis of tissue. In respect to alcohol, he says, "Upon consideration of the foregoing experiments collectively, I arrive at the conclusion that alcohol increases the weight of the body by retarding the metamorphosis of the old tissues, promoting the formation of new, and limiting the consumption of the fat. Viewed in detail, it is seen that, under the use of alcohol, the following effects constantly ensued:—1. The carbonic acid and aqueous vapour given off in respiration were lessened in quantity. 2. The amount of fæces was diminished. 3. The quantity of urine was reduced. 4. The urea, chlorine, and phosphoric and sulphuric acids were diminished in amount. These effects occurring when the amount of food was below the quantity required to maintain the weight of the body under the mental and physical exercise taken were productive of no deleterious results to the system. On the contrary, when the food was sufficient to balance the waste from the excretions, and still more when an excess of aliment over the demands of the organism was ingested, the healthy working of the system was disturbed, and actual disease almost induced. The use of alcohol, even in moderation, cannot therefore be either exclusively approved or condemned. . . . . It has been assumed by several late writers that the primary action of alcohol is the retention in the blood of the products of metamorphosis. I am inclined to think this opinion erroneous, and that alcohol, instead of preventing the elimination of the decayed tissues, acts by preventing in a great measure their primary destruction."

The experiments made with tobacco by Dr. Hammond, who we should observe is unused to it, led him to the following conclusions:—1. Tobacco does not materially affect the excretion of carbonic acid through the lungs. 2. It lessens the amount of aqueous vapour given off in respiration. 3. It diminishes the amount of fæces. 4. It lessens the quantity of urine, and the amount of its urea and chlorine. 5. It increases the amount of free acid, uric acid, and phosphoric and sulphuric acids, eliminated through the kidneys. "Tobacco, when the food is sufficient to preserve the weight of the body, increases the weight; and when the food is not sufficient, and the body in consequence loses weight, tobacco restrains that loss. Unlike alcohol, this influence is unattended with any unpleasant effects upon the circulating system, though its action on the brain and nerves is not such as always to be desired. When used in greater moderation than in these experiments, this influence would doubtless be greatly lessened."

American Journal of Medical Science, Oct., pp. 305—20.

ON CHLOROFORM IN DELIRIUM TREMENS.

By Dr. RICHARDSON.

Dr. Richardson having seen an account of the successful employment of chloroform in the treatment of delirium tremens, at the Hospital, Blackwell's Island, New York, to which he was at the time Assistant-Physician, writes to protest against the accuracy of the statement. He says that, out of some hundred cases so treated, but nine were stated to be cured; while, in fact, this was the case with but one, all

the others having yielded to large doses of opium and diffusible stimuli. On reviewing the cases in which chloroform seemed to be of use, he says, it is found that sleep only occurred after large and frequent doses of opium and stimuli had been already administered; and, in every case in which it was given before the patient had been nearly narcotized with opium, either fatal asphyxia was the result, or its influence rapidly passed off, leaving the patient as delirious, and often more so than before its administration. "In a pure and uncomplicated case of delirium tremens, we find that all the functions, both of animal and organic life, are inefficiently performed; the intellect is clouded, the appetite fails, digestion is impaired, all the secretions are scanty, the heart beats feebly, the pulse is small, and the tendency to local congestion is very great. When chloroform is administered in such cases, it necessarily produces congestion of the lungs, since the blood, not being decarbonized, flows more and more slowly through them until it ceases to circulate; hence the liability, in all cases where chloroform is inhaled, to death from what is sometimes called pulmonary apoplexy, or from subsequent pneumonia. I have made autopsies in several cases of death following the administration of chloroform, in one of which it supervened immediately after the patient had ceased to inhale the anæsthetic; and I have invariably found the lungs completely gorged with dark venous blood. Not only does chloroform produce congestion of the lungs, but also of the brain and nervous system generally."—*American Journal of Medical Science*, October. P. 368.

EXCERPTA MINORA.

Mechanical Pressure in Spermatorrhœa.—Prof. Trousseau has in many cases found the employment of mechanical pressure of great utility, this opposing alike the exaggerated contractility of the vesiculæ seminales and the want of resistance in the ejaculatory vessels. He learnt the plan accidentally from its being practised by a charlatan. It consists in the passing into the rectum a wooden, smooth, ovoid body, of different size, according to the individual, which is supported at the perinæum by a portion of vulcanized caoutchouc passing through a metallic ring at the stalk of its body. After wearing it a short time the discharges diminish or cease. In this affection, too, he strongly recommends the application of hot water, hot sand, &c., to the perinæum, which, although temporarily increasing the irritation, eventually reduces it.—*Union Med.* No. 85.

Salt in Intermittent Fever.—Dr. Moroschkin observes that during the prevalence of scorbutus and ague in the Transcaucasian provinces of the Black Sea, quinine sometimes entirely lost its powers. When no very prominent scorbutic affections were present he administered 1 oz. of salt in water, in two doses daily, during the absence of the apyrexia. In patients in whom the paroxysms were incomplete, very abundant sweating followed, the skin re-assumed its normal appearance, and the various other signs of amendment followed, the disease becoming cured in a few days, and the dose having been diminished. In cases in which the improvement was only partial, quinine now became more efficacious. Of 103 cases, 70 were completely cured, and the others meliorated.—*Schmidts Jahrb.* Band XC. p. 168.

Blisters to the Cervix Uteri.—M. Aran states that he has derived great advantage from the direct application of blisters to the cervix uteri, and the following are his conclusions:—1. They act there in the same way as upon the surface of the body. 2. They give rise to no inconvenient symptoms, not even as relates to the bladder. 3. They are chiefly useful in chronic uterine affections; and act by dissipating pain, whatever may be its source or character, whether idiopathic or symptomatic of organic disease, by dispersing engorgements of the organ, whether accompanied by induration or not, and by inducing a topical modification of diseased surfaces of the cervix (as erosions, ulcers, granulations), leading to rapid cicatrisation.—*Bull de Thérap.* Tom. LI. p. 68.

Collodion in Umbilical Hernia.—M. Mahy calls attention to the great utility of this, when used fresh and pure, possessing all its contractile power. Elastic collodion, containing castor-oil and turpentine, is too flexible. The collodion in drying effects the reduction of the hernia, keeps it reduced, and favours the contraction of the aperture. If the skin around the dried collodion becomes too wrinkled and irritated, it should be smeared with cerate or glycerine. The collodion remains *in situ* seven or eight days, then becomes gradually detached, and may be renewed. The application in no wise prevents the use of baths, or the cares the child may require When the collodion is old, it requires renewing every other day.—*Bull. de Thérap.* Tom. LI. p. 87.

Arsenic in Intermittent Mania.—Intermission in mental diseases is by no means a rare phenomenon, but it is almost always incomplete, it being rare for a patient to enjoy complete lucidity in the intervals. Such cases are, however, occasionally met with, and one recently occurred to M. Moreau at the Bicêtre. Quinine, according to some, is of avail under these circumstances; but M. Moreau has employed it in various ways and doses, but never with decided success. He has since substituted arsenical preparations with much better success.—*Gaz. des Hôp.* No. CXIII.

Local Application of Carbonic Acid Gas.—M. Monod states, that he and M. Demarquay have made repeated trials of this with great success in carcinoma uteri, and uterine neuralgia. They have extricated the gas by means of a common Briet's gazogene, and, prolonging the application for thirty or sixty seconds, M. Broca has found the application useful in highly irritable bladder.—*Gaz. des Hôp*, No. CXXIX.

Ergotine in Epidemic Diarrhœa.—M. Massola, during epidemic diarrhœa that proved very fatal to the Sardinian troops in the Crimea, found astringents, tonics, opiates, or stimuli, of little avail, and then tried the effects of *ergotine* in about twenty of those patients who were suffering from profuse chronic asthenic diarrhœa. From 15 to 30 grains were given in 30 drachms of sweetened water, a table-spoonful being taken every half hour. The result was in the highest degree satisfactory, when all future experiments were cut short, the supply of ergotine having gone down in the Crœsus.—*Comptes Rendus*, Tom. XLIII., No. 7.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, December 2, 1856.

The first meeting, for the present session, of the Pathological Society, was held on Saturday last, in the Anatomical Theatre of Trinity College. The President, Dr. Stokes, on taking the chair, addressed the students, of whom a very large number were present, reminding them that they enjoyed a privilege nowhere else conceded to students, namely, of attending the meetings of the Pathological Society, and that conformity to the regulations under which they were admitted would be strictly required. One of these regulations was, that no expression of approbation should take place. Dr. Lees brought forward a specimen of cancer of the liver. The case had been remarkable for presenting many of the symptoms of hepatic abscess, as rigors, etc., and particularly the peculiar spastic rigidity of the right rectus muscle, which has been laid down by Twining as characteristic of that disease. Dr. Banks laid before the Society a well-marked specimen of intense sphacelus of the liver. The case had run an extremely rapid course, and was attended with the most acute symptoms. The extreme rarity of the disease, so great that even Rokitansky and Andral had each seen but one specimen of it, rendered Dr. Banks' communication most interesting. The President announced as the subject for the Gold Medal of the Society for 1857, "The Diagnosis and Pathology of Diseases of the Rectum."

The Society then proceeded to the election of officers for the year 1856-7, when the following were chosen:—President, Dr. Corrigan; Vice-Presidents, Drs. Banks, Fleming, Hamilton, Law, Lees, and O'Ferrall; Council, Sir Philip Crampton, Bart., F.R.S., Sir Henry Marsh, Bart., Drs. Adams, Beatty, Churchill, Gordon, Hughes, Hutton, Lyons, M'Dowell, Mayne, Smith, and Stokes; Honorary Secretary, Dr. Stokes; Secretary and Treasurer, Dr. Smith.

The opening lecture of the Regius Professor of Military Surgery, delivered at the College of Surgeons on the 24th ult., was attended by a crowded auditory, among whom were Lord Seaton, the Commander of the Forces, in full uniform, and attended by a brilliant staff; the Lord Mayor; the Lord Mayor Elect; the Provost of Trinity College; the Chief Secretary for Ireland; General Lord Gough; Lord Talbot de Malahide; Dr. Maclean, Inspector-General of Hospitals; Sir

James Pitcairn; General Cunningham; General Van Straubenzie; Colonel Wood, Deputy Adjutant-General; Colonel Webber Smith, Assistant Adjutant-General; Colonel Wetherall; the Military and Medical Officers of the Garrison; with the leading members of the Profession in Dublin. The chair was taken by the President of the College. Professor Tufnell discussed at some length the policy of the peace; and made the subject of his interesting and eloquent lecture the illiberality with which the Medical Officers were treated by the country, and showed the real value of these officers to the nation; appealing to the commanding officers present as to the truth or falsity of his statements. His well-timed and important observations were received with marked signs of approval by the distinguished individuals present, and the discourse was loudly applauded by the audience at large.

Dr. Churchill entered on the duties of his professorship in the School of Physic on Thursday, the 20th ult. Having paid a grateful tribute to the merits of his distinguished predecessor, he enlarged upon the accession Obstetrical Science has acquired during the last few years.

The nineteenth annual Session of the Dublin Obstetrical Society was opened last evening with interesting papers by Drs. Montgomery and M'Clintock.

I am happy to state that Dr. White, the highly esteemed Inspector of Lunatic Asylums in Ireland, is recovering more rapidly than could have been anticipated from the effects of the severe concussion of the spine he experienced in the late fatal collision on the Waterford and Kilkenny Railway.

The Rev. S. Haughton, a Fellow of Trinity College, has just given an account of some experiments on the properties of nicotine and strychnine, at a meeting of the Royal Irish Academy. He stated that he was induced to make the experiments by the consideration of the specific actions of strychnine and nicotine upon the muscular system, which appeared to be so opposite in their character as to lead him to a conviction that they might prove to be mutually antidotes to each other's action. It is generally believed that strychnine exerts a specific action upon the lower or lumbar portions of the spinal column, exciting the muscular system (at least the voluntary muscles) into a state of tetanic contraction, and ultimately producing death indirectly, by rendering respiration mechanically impossible, by virtue of the permanent contraction of the pectoral muscles; and not, as was once supposed, by its action upon the heart. It is also well known that the most powerful agent we possess for relaxing the action of the muscles is nicotine, whether administered in the form of tobacco smoke or infusion of the leaves. From these well-known facts he (Mr. Haughton) was led to believe that these powerful poisons might be used as antidotes to each other's action, and with the view of testing this conjecture, he made several experiments. Four of these went to show the effects of the two poisons separately. The fifth and sixth are important, as they appear conclusive to Mr. Haughton as to the action of nicotine in retarding, and in certain cases in completely counteracting, the effects of strychnine. In the fifth experiment, a frog had lived for 47 minutes in a mixture of two solutions, of which one would have destroyed life in 4 minutes, and the other would have produced paralysis in one minute, and destroyed life in 23 minutes; and yet in the mixture the animal had lived for 47 minutes, and afterwards for 24 hours. In the sixth experiment, the frog immersed in a similar mixture of the poisons for 10 minutes had ultimately recovered, the effect of the strychnine being completely obviated by the action of the nicotine. Mr. Haughton expressed a hope that further inquiries would be instituted into the action of strychnine and nicotine upon some of the warm-blooded animals, as he believed that in nicotine, which was always easily procurable in the form of tobacco-leaf infusion, would be found a valuable antidote in at least some cases of strychnine poisoning, whether intentional or accidental.

GENERAL CORRESPONDENCE.

DR. LEES AND DR. BRINTON.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the last number of your Journal you have made two very serious charges against me—those of "plagiarism and piracy," which I assert you are not justified in. You have quoted extracts from my recently-published lectures on "Diseases of the Stomach," which appear to be nearly identical with those taken from an "Original Communication" made by Dr. Brinton in the 33rd and 35th numbers of the *British and Foreign Medico-Chirurgical Review*, published in 1856. I therefore beg to direct your attention to an essay written by me on "Chronic Ulcer of the Stomach," and published in the *Dublin Quarterly Journal of Medical Science* for August, 1850, where you will find that *all* the important points in Dr. Brinton's "Original Communication" have been previously treated of by me, and that his description, published in 1856, bears a strong resemblance to mine, previously published in 1850. I will thus far collate a few of the paragraphs which you have cited as being copied from Dr. Brinton.

Dr. Brinton, 1856.	Dr. Lees, 1850.
In size the ulcer is rarely much smaller than a fourpenny piece, or larger than a crown piece.—Page 162. *Review*, 1856.	The size of the ulcer varies from that of a fourpence to that of half-a-crown, but is sometimes much larger.—Page 33, *Dublin Quarterly Journal*, August, 1850.
The shape of the ulcer is usually circular or slightly oval. It is often oblong, its direction being either parallel or transverse to the axis of the stomach, and in rare instances it has formed a zone round the pyloric valve, or the neighbouring extremity of the organ.—Page 163.	Their shape is generally circular; but as they extend they assume an elliptical form, and often become very irregular. If they extend in the *transverse* diameter of the stomach, they cause alteration in its shape, their cicatrization being often followed by *annular strictures*.—*Lees*, page 33.
In some instances there is little or no evidence of inflammation in the neighbourhood of the lesion, which consists of a mere removal of the mucous membrane over a circular space, that forms a shallow but level pit, with a sharp, smooth, vertical edge, as though it had been punched out.—Page 163.	The mucous membrane is sometimes pale, or sometimes exhibits patches of inflammatory or congestive redness (page 33). The mucous coat being removed to a greater extent than the muscular.
But this event (perforation) is in most instances presented or deferred by the occurrence of adhesion; uniting this organ to some neighbouring surface.	The peritoneal opening is generally small, circular, and thinned off to a sharp edge; it appears as if the *piece had been punched out*.—Page 32.
The patient is suddenly attacked by violent pain in the epigastrium, which rapidly spreads *over* the belly.—P. 173.	This result (perforation) may be prevented by adhesion having taken place between the peritoneal surface of the ulcer and some of the adjacent viscera.
	The individual is generally attacked with sudden severe pain in the epigastrium. The pain spreads rapidly *over* the abdomen.—Page 32.

I have also alluded to its connexion with menstruation, in these terms:—"Many are of opinion that the condition of the system which induces disordered menstruation also predisposes to this disease, and have hence termed it a menstrual ulcer."—Page 21. I trust that these few extracts will satisfy you as to the charge of plagiarism; but while I admit that Dr. Brinton's descriptions have been more extended than mine, I assert there is no difference in their substance; and I think I have reason to complain that Dr. Brinton has never alluded to my essay, though he states that "he had undertaken a troublesome search through various British and foreign journals and reports in search of information." I have read Dr. Brinton's communication with much pleasure, and certainly did adopt in my lectures the words of some of his descriptions; but as I had long previously to his publication announced the same facts, and as in my recently published lectures, in the *Dublin Hospital Gazette*, I have quoted his name *seven* times, with *extracts* (within inverted commas) from his communication, and a full reference to the periodical in which it was published, I did not consider it necessary to acknowledge every word which merely expressed anatomical facts well known to every practical physician.

One extract on the nature and histological character of the exudation is so complete a copy from Dr. Brinton, that any unprejudiced person would at once perceive that it was in-

tended to have been placed within inverted commas. Whatever there was of original merit in Dr. Brinton's communication I have fully acknowledged; but I did not think it necessary to give him credit for facts previously published by myself and others; but I never entertained the idea of charging him with plagiarism, notwithstanding the close similitude which some of his passages bear to mine published six years previously. I know, and so must also Dr. Brinton, that Medical men pursuing the same investigations, and using the same means to arrive at a similar object, often will, nay, even must, express their ideas in nearly identical language; and I feel confident that these charges have not emanated from Dr. Brinton, who being himself a practical Physician, can comprehend the difficulties attending original investigations on disease.

In the course of lectures I am at present engaged on, and which are chiefly intended for Students, I think it a duty to them, and my own right, to adopt (with due acknowledgment) whatever of value has been published on the subject, and I have, therefore, availed myself of the writings of Budd, Cruveilhier, Rokitansky, Taylor and Watson, as also of the Proceedings of the Dublin Pathological Society. I trust this explanation will satisfy you and your readers that I am guiltless of "plagiarism or piracy;" and therefore, consistently with your statements (in which I fully concur) as to the "morality of the Medical press," I can hardly doubt but that you will readily give equal prominence and publicity to my refutation as to those unfounded charges, which obviously, under an erroneous impression, you have so publicly made against me. I am, &c.

Cathcart Lees.

17, Lower Fitzwilliam-street, Dublin.
December 1, 1856.

ON THE EFFECT OF CHLOROFORM UPON THE RESULTS OF OPERATIONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the fourth paragraph of my paper on chloroform, published on the 25th ult., the opinion is expressed, that the concealment of deaths from the administration of this agent is, for the reasons there assigned, "neither extraordinary nor reprehensible;" and, though this remark refers particularly to private practice, the same reasons obviously apply to such deaths occurring in hospitals, for the relatives of the poor who die from chloroform have feelings as well as the rich, and should not be needlessly afflicted. After having expressed these opinions, it is with no little surprise that I find myself charged, in the last number of this Journal, with casting an imputation on the Profession, by asserting that there has been such a concealment. I conceive that a Practitioner is no more called upon to divulge accidents from the use of chloroform than those proceeding from mercury, opium, or other powerful drugs; and surely his concealment of these has never been considered dishonourable. He has it always in his power to make his professional brethren acquainted with such occurrences at a convenient time, if the information be useful to science, but he should confine the communication to them.

It is of importance, however, in judging of the propriety of employing chloroform indiscriminately, to know that the reported cases of sudden death from it do not constitute the whole number that have occurred. My opinion on this point is by no means singular. At a meeting of the Edinburgh Medico-Chirurgical Society, on the 5th of last March, and on the occasion of a discussion respecting a death from chloroform, Dr. Gairdner, one of the most distinguished of its members, stated, that "within the last three weeks, he had been informed of three distinct cases of reputed death from chloroform, which had been the talk of a neighbourhood (not in Edinburgh), but which would probably never be noticed in any more public way." But what Medical man is there who does not know several such cases? How rarely do we hear of death by chloroform or ether in France? Not once in a year; yet etherization is as much in use there as here, and we cannot admit that their plan of administering anæsthetics is superior to ours. The reason, doubtless, is, that French Practitioners do not consider themselves bound to divulge these more than other accidents occurring in their practice.

I shall now proceed to notice Mr. Holmes's second letter; but, as I have already, in the paper referred to and in my first letter, answered most of his reiterated objections, I shall confine myself to what he says respecting the rate of mortality from lithotomy. He is not satisfied with the reasons which I adduced for believing that the cases in the Hospitals, upon which lithotomy has been performed during the last three years, were of the ordinary description, and not only those bad rejected ones deemed unfit for lithotrity. But, if the facts, that only one case of lithotrity in the adult occurred during the last year in the London Hospitals, that that case was pronounced unfit for lithotomy, and that several in the former years were also bad cases for lithotomy,—if these facts fail to convince him, what hope can I entertain of conviction from other evidence? Will it serve any purpose to inform him, that of the few that were lithotritized during this period, nearly a third died; showing that the cases could not have been what are termed good ones, as this mortality is of higher rate than that arising formerly from lithotomy? Does he not know that lithotrity has as yet obtained but little favour with Surgeons, and that this was one of the reasons assigned by Sir Benjamin Brodie for publishing his recent paper, recommending the operation, in which he refers to these very statistics as a support to his argument? As a professed logician, Mr. Holmes ought not, so openly, to shift his ground as he does in this discussion. The question is not, as he states, whether it is, or is not, the case, that the best subjects are reserved for lithotrity, although the proper answer to this question is very different from that he supposes; but, whether the cases in the Hospitals, during the three years, were not ordinary cases of stone in the adult. The obvious truths that every case of disease has peculiarities affecting the prognosis, and that large numbers are better than small for such calculations, it was surely unnecessary to state; but the advantage of statistics, or of forming an estimate from a great many examples is, that these differences or peculiarities being thus balanced, become of little or no importance. As to Mr. Holmes's new question, it may be true that, amongst those Surgeons who practice lithotrity, the best cases may often be selected; but Mr. Holmes must surely know that the cases to which this operation has been deemed peculiarly adapted are not the best, but the worst cases for lithotomy, or those of very old men. If he will refer to Mr. Erichsen's "System of Surgery," he will find statistical returns, showing the extraordinary success of lithotrity performed on septuagenarians and octogenarians, few of whom would have probably survived lithotomy.

What Mr. Holmes exactly means when he presumes to accuse me of bringing a charge of rashness against the Hospital Surgeons, because I affirm that chloroform has increased the mortality from lithotomy, it is difficult to say; but this I know, that although Surgeons may be sorry to find that that which they considered a great and unmixed boon, does not deserve this high character, they cannot for a moment consider the publication of my inquiries on the subject as any imputation on their judgment or skill. Do Mr. Bellingham, and the other distinguished Dublin Surgeons, who have shown that the ligature of arteries in aneurism is more fatal than compression, or Mr. Syme, who has shown that excision of certain joints is preferable to amputation, thereby cast imputations on the Profession?

Instead of following Mr. Holmes through other details, in which his reasoning is equally incorrect, I will occupy what remains of the little space I can venture upon, with a few additional observations respecting the question of the cause of the admitted great increase of mortality since the introduction of chloroform. Mr. Holmes mis-states my argument on this point. I have not said that chloroform must be the cause, only because no other cause can be pointed out. I have adduced chloroform as a *vera causa*. I have enumerated the symptoms or effects produced by it, manifesting its poisonous or pernicious character, and I have given what I think will, in the present state of our knowledge, be deemed a sufficiently satisfactory explanation of its mode of action. Can a better explanation be given of the action of foul air, an admitted powerfully predisposing cause of fatal disease after operations?

As regards the "epidemic pyæmia" which has been deemed the cause of this increased mortality by Mr. Holmes, or any other similar influence, it may be stated, in addition to other objections, that the circumstance of there having been an increase of mortality only after the severer operations, militates

strongly against such an idea. If an epidemic influence prevailed, how was it that the wounds from excision of tumours, etc., escaped the infection? It is not so when hospital gangrene or erysipelas prevails. I have explained in my paper why chloroform only proves fatal in minor operations by its primary effects. Mr. Holmes admits that pyæmia existed before the introduction of chloroform, though its nature was unknown; and he must be aware that other diseases have appeared to be unusually prevalent only because means have been discovered of detecting them. After the discovery of auscultation by Laennec, we had what was, often in jest, called an "epidemic heart disease." To allege that the increased mortality has proceeded from an imaginary epidemic, (though, no doubt, it may, as I have said, have been at times aggravated by general influences,) when we have so sufficient a cause as chloroform before our eyes, is hardly a greater mistake than it would have been to attribute to an epidemic the excessive mortality which prevailed among Dr. Sangrado's patients in Valladolid.

I trust that this correspondence will now cease. I have no objection to defend any of the positions I have laid down connected with this important inquiry; but I am unwilling to waste my time and unprofitably occupy the valuable columns of a Medical journal by repeated replies to repeated objections. I am, &c.

London, Nov. 29, 1856. James Arnott.

UNIVERSITY OF LONDON EXAMINATIONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The "Undergraduate" who comes forward as the champion of the present high standard of requirements demanded by the University of London has, I think, somewhat misapprehended the purport of your remarks. I did not understand that you wished the examination lowered to the "grinders'" level. There is a very wide difference between the highest standard that need to be imposed upon the average of undergraduates, and the tests that can easily be attained by the help of a "grinder." A wide margin would be left for the incompetent; while those who had proved their competency would have obtained a degree that confers dignity. To those who aim still higher, the honours of the University are open.

The "Undergraduate," however, has altogether lost sight of a large class of men who in after-life may desire to acquire the honour of a degree from the University of London. These are now effectually excluded from all chance thereof, if they have any engagements demanding the greater share of their time and attention. By elevating the standard so that prizemen or *élites* only can reach it, these men are compelled to seek their degree at some inferior University. It must be borne in mind that the class to whom I refer includes not merely routine Practitioners, who, having grown grey, would like a dignified relaxation from the duties of general practice, but it embraces many who hold the most distinguished positions in the Profession, to be classed with whom is alone and of itself an honour.

Ambitious of its degrees, I should equally with the "Undergraduate" regret that the University of London should lose the respect and confidence of the public and the Profession. Such a result could not, however, I conceive, follow from placing these within reach of experienced Practitioners, as well as of the *élites* of the schools. Neither could there be any injustice towards the existing graduates to admit as their equals men whose attainments are attested by an examination adapted to their position; probably, also, by the attainment of prizes in early life, and by subsequent years of hard-earned experience.

The University of London was intended, I should suppose, to be useful as well as ornamental. It is all very well to pride ourselves on the "lustre," and so forth, of its graduates, but we must not forget that it was established in order that the inhabitants or residents of London and its neighbourhoods should enjoy the opportunity of obtaining degrees compatibly with the prosecution of studies, for which it was perfectly clear that London offered far greater facilities than the older Universities.

For all that has yet been shown to the contrary, I still submit that it would greatly extend the usefulness and credit of the University of London were a scale of examination adapted to the opportunities and acquirements of men of some standing in the Profession, who have already passed the ordeals of other examinations.

There are many who would have prided themselves on such an M.D., who having perforce gone northward, keep the *alma-matership* of their M.D. as quiet as possible, being half-ashamed thereof, seeing how easily these are gained. The principal credit of some Universities has been reflected by graduates who have earned their reputations where they cannot obtain their degrees. I am, &c.

F.R.C.S., L.A.S.

INDEPENDENT POSITION OF POOR-LAW MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

"The fact that the vacancy has been caused by what appears to be the unjust dismissal of Mr. Waldegrave."

Sir,—The above remark in your editorial article of Saturday, November 29, 1856, appears to me to embody an error with regard to the power of Boards of Guardians over the Medical Officers of Unions.

By Article 191, Consolidated Order, the Medical Officer holds his appointment "till he die, resign, or become disqualified," or be removed by the Commissioners, not by the Guardians; they have only the power of suspending a Medical Officer; but that suspension is required to be forthwith reported to the Poor-Law Board, and it is only right to infer that they would interfere in a case of injustice; but it generally happens that the Surgeon, bullied and disgusted, and perhaps intimidated, and not understanding the strength of his position, sends in his resignation, which the Poor-Law Board accept, and do not interfere to reverse.

It is painful to the feelings, and very trying to the temper,—I speak from experience,—to bear patiently the indignities and petty tyranny which some of these gentry seek to inflict upon us. I say some, for many of them are Guardians of the Poor by deed as well as by name; but I believe that, as Professional men, we need only be careful that our duties are well performed, both by ourselves and representatives; and, to act simply with firmness and moderation, in order to stand perfectly secure in our position, and ensure a victory over the attempts of our enemies.

Again: the stipend of a Medical Officer is, in fact, a compact between him and the Guardians, submitted to and accepted by the Poor-Law Commissioners; for them to interfere would be, virtually, to destroy the principle of free trade. In cases of insufficient remuneration the proper course appears to me to be, to submit the appeal against it not only to the Guardians but also to the Poor-Law Commissioners, who, although they "regard not man," may yet be influenced by external pressure to procure some alteration, for the sake of their own convenience. Although a subscriber to Mr. Griffin's movement, I have more confidence in this individual representation and assertion of right, than in an appeal to Parliament; we had better put our own shoulders to the wheel than call upon Jupiter; and it appears that we have more power than we think for.

A Poor-Law Medical Officer.

RICORD ON SYPHILIS AND MERCURY.

[To the Editor of the Medical Times and Gazette.]

Sir,—My attention having been drawn to an original communication in the October number of the *British and Foreign Medico-Chirurgical Review* on Infecting and Non-Infecting Syphilitic Sores, by Mr. Henry Lee, and finding in it a passage containing a gross perversion of facts, enunciated as well by Mr. Langston Parker as by myself, I feel called on at the earliest opportunity to expose it.

At page 500 occurs the following passage:—

"In England opinions have been as varied as in France. Thus, in the third edition of Mr. Langston Parker's work, where he speaks of the circumstances which particularly indicate the use of mercury in primary syphilis, the Author includes 'all sores which have yielded a characteristic pustule by inoculation.' The indication for the employment of mercury, Mr. Langston Parker says, is still more pressing if the primary sore be accompanied by bubo (p. 15). In support of this opinion he quotes the following as from M. Ricord: 'In

such cases six months never elapse without secondary symptoms manifesting themselves, unless a specific treatment be employed. This is a universal law, which there is no means of eluding but by mercurial treatment.' These quotations profess to be taken from Stapleton's translation of Ricord. What M. Ricord himself, however, says is exactly the reverse of this: 'Tout bubon qui suppure spécifiquement, c'est à dire qui fournit du pus inoculable, n'est jamais suivi d'accident d'infection constitutionelle.' Ricord's opinion, as here quoted from the original, is quite in accordance with the Author's experience, and in direct opposition to the published views of Mr. Langston Parker."

Now, in my analysis (not translation) of M. Ricord's letters I state the propositions and conclusions arrived at by him after twenty years' experience, viz.,—

"1st. Every bubo which suppurates specifically, that is to say, which furnishes inoculable pus, is never followed by secondary constitutional contamination. A sign more valuable than the absence of induration in chancre, which has preceded, and which may deceive (a).

"2. Multiple indolent bubo consequent upon indurated chancre is a further and sometimes the sole proof of constitutional infection, when we have not an opportunity of witnessing the induration of the chancre."

It will be observed that Mr. Lee only takes notice of the first proposition; but that the second, which is the one Mr. Langston Parker alludes to, he seems not to have seen; and it is to this multiple indolent bubo (Pleiades) that M. Ricord refers when he uses the emphatic language correctly quoted by Mr. Langston Parker: "Six months never elapse without syphilitic poisoning manifesting itself."

Although Mr. Henry Lee quotes M. Ricord, yet as throughout his essay he does not once allude to the multiple indolent bubo, I can only account for the very extraordinary blunder into which he has fallen by supposing him to be unacquainted with M. Ricord's views.

I am, &c.

Michael Harry Stapleton.

1, Mountjoy-place, Dublin.

REPORTS OF SOCIETIES.

THE ROYAL SOCIETY.

The Anniversary Meeting of the Royal Society was held at Somerset House on Monday, December 1. Lord Wrottesley, the President, took the Chair, and delivered the customary address, in which the advancement of science and the advantages likely to accrue from intimate relations between the Government and the representatives of science were earnestly set forth. He recommended another Arctic Expedition in search of the relics of the Franklin party, and said, "It is certain that science has sustained, and does still sustain, injury from the fear of offending against the popular notion that it is wrong to hazard human life for scientific research. In the case of the proposed Polar expedition the risk would be very small, inasmuch as the exploration, instead of being, as formerly, a tentative one, embracing many thousand miles of unknown coast, would be confined to a fixed and limited locality, hitherto unexplored, and possessed of great scientific interest. Independently of additions to our geographical and physical knowledge, the possible recovery of the magnetical observations and the journals of the Franklin expedition, is a consideration of great moment, since the former must have been made by officers well trained to the task with excellent instruments, verified before the sailing of the expedition, and in localities possessing peculiar interest in reference to the theory of magnetism; and the latter would, doubtless, contain a narrative of the deepest interest, not only to the cultivators of science, but to the public generally. You will not suspect me, I am sure, of being indifferent to the fate of brave men; but the fact is, it is well nigh impossible to add to our stock of physical knowledge without some risk to life. The astronomer in his observatory, exposed night after night to the open air at a freezing temperature; the chemist in his laboratory, among poisonous and explosive substances; the surgeon who handles the dissecting-knife, all, equally with the adventurous traveller, expose their lives to peril. We know what was the opinion of the great Athenian moralist and martyr on this question, from that fine passage in which the dangers of military and civil life are so beautifully contrasted. 'I should have acted strangely, indeed,' says he, 'if, having stood firmly in the post assigned to me by my general at Amphipolis, Potidæa, and Delium, and braved every danger, I had turned coward and feared to die when God ordered me to be a philosopher and instruct mankind.'"

The medals were awarded to the following gentlemen:— The Copley to Professor H. Milne Edwards, for his researches in comparative anatomy and zoology; the Rumford medal to Professor Louis Pasteur, of Lille, for his discovery of the nature of racemic acid, and its relations to polarized light, and for the researches to which he was led by that discovery; a Royal medal to Sir John Richardson, for his contributions to natural history and physical geography; a Royal medal to Professor W. Thomson, of Glasgow, for his various physical researches relating to electricity, to the motive power of heat, etc.

At the close of the address the Society proceeded to elect a Council and Officers, and the following list was chosen for the year ensuing:—

President.—The Lord Wrottesley, M.A.

Treasurer.—Major-General Edward Sabine, R.A., D.C.L.

Secretaries.—William Sharpey, M.D.; Mr. George Gabriel Stokes, M.A., D.C.L.

Foreign Secretary.—Mr. William Hallows Miller, M.A.

Other Members of the Council.—Mr. James Moncrieff Arnott, William Benjamin Carpenter, M.D., Mr. Arthur Cayley, the Dean of Ely, Mr. William Fairbairn, Arthur Farre, M.D., Mr. William Robert Grove, M.A., Joseph Dalton Hooker, M.D.; Mr. William Hopkins, M.A., William Allen Miller, M.D., Lyon Playfair, Ph.D., Rev. Bartholomew Price, M.A., Captain Sir James Clark Ross, R.N., D.C.L., Rear-Admiral W. H. Smyth, D.C.L., John Stenhouse, LL.D., John Tyndall, Ph.D.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

November 26, 1856.

Cæsar Hawkins, Esq., President, in the chair.

Dr. Graily Hewitt read a paper

ON THE PATHOLOGY AND TREATMENT OF BRONCHIAL AFFECTIONS IN INFANCY AND CHILDHOOD.

In the first part of the paper, the author, after alluding to the difficulties attending the study of chest affections in infancy and childhood, and the errors that are more or less universally prevalent as to the pathology of these affections—errors which he attributed in great part to the indiscriminate transfer of the nosology of disease in adults to that of early life—entered on a description of the pathological conditions of the lung associated with bronchitis and allied affections at this period of life. From a tabular statement of deaths in the metropolis in seven years, it appeared that in the first year of life 22.10 per cent. of the deaths arose from the four following causes:—hooping-cough, influenza, bronchitis, and pneumonia; in the second year, 33.77 per cent.; in the third, 28.80 per cent.; these being diseases in which, at this period of life, the lungs exhibited after death more or less the lesion formerly described as "lobular pneumonia." These calculations were given to show the extreme importance of any inquiry having for its object the dissemination of correct views as to the manner in which death is caused in a class of diseases so highly fatal to young children. The pathological condition known as "bronchial collapse" was then described, its distinctness from ordinary pneumonia pointed out, as well as the impropriety of the designation "lobular pneumonia," still extensively used in speaking of this lesion. The author contended strongly for the use of the term *apneumatosis*, first applied by Fuche to this airless state of the lung, as tending to the recognition of a condition whose occurrence is to be regarded as one of extreme frequence in all affections involving the bronchial tubes at this period of life, and the supervention of which he considered to have a very great influence on the fatality of these affections. The fact that true pneumonia is an affection, and extremely rare in infancy, that most of the cases described as pneumonia and inflammation of the lungs,

(a) Analysis, p. 47.

at this period of life, are to be regarded as cases of bronchitis in which the apneumatosis existing is thereby induced, were the points most insisted on as having an exceedingly important bearing on the treatment of such affections. The differences between the conditions *atalectasis* and *apneumatosis* were briefly alluded to, the first being a congenital, the second an acquired condition, the lung being in both destitute of air. Having then alluded to the pathology of these affections, and especially the manner in which death is brought about by these pathological alterations, the subject of the treatment adopted was considered. The author contended, that pneumonia, in the true sense of the word, being absent, and a condition exceedingly liable to arise, which in itself is of a highly depressing, devitalizing character, the continued administration of medicines, or the adoption of therapeutic measures tending in the same direction—such as depletion to any great extent, or the giving of tartar emetic, as is so commonly the practice in all bronchial and chest affections in children, is to be reprobated, and such treatment is opposed by theoretical and practical considerations. It was contended that the chief object being to prevent death, and death generally occurring owing to the supervention of apneumatosis, our endeavour should be to prevent the occurrence of this lesion. The treatment recommended in mild cases of catarrh or bronchitis, consisted in particular attention to the diet and regimen of the child, the administration of an emetic of ipecacuanha to promote expectoration and removal of mucus, sinapisms, &c. In severer cases threatening apneumatosis, emetics, given however with greater caution, and only when the strength is not reduced, the administration of small doses of ipecacuanha wine at frequent intervals, with or without carbonate of ammonia, as the case may be, and friction of the surface of the chest with sweet oil, frequently repeated; the object of these frictions being to promote the expansion and movements of the chest, the consequent filling of the air-cells with air, and the removal of mucus from the tubes, the presence of this mucus, together with imperfect expansion of the chest, being considered as the chief agents in the promotion of apneumatosis. Stimulants were also recommended at this stage of the affection. The experience of the author had led him to think very highly of this plan of treatment, the urgent symptoms having been almost constantly relieved thereby in a very large number of cases which had come under observation, and in which the above treatment was uniformly pursued.

Dr. Webster agreed with the author generally in his views. The disease was one of most frequent occurrence, being the third in point of fatality, while pneumonia was the second. It was proportionately the more fatal among boys than girls, in consequence, as he believed, of the greater exposure to which the former were subjected. In fatal cases he had generally found bronchial affections, on examination after death, combined with disease of the lungs. He differed from the author in reference to the effects of tartar emetic, which he regarded as a most valuable remedy, especially in the early stages of the disease, if administered with discrimination. He considered that there was no remedy so valuable in cases where the skin was hot and dry. The author had not mentioned the warm bath, which was often very serviceable as an extra medical remedy. In the early stages bleeding was absolutely necessary, but he preferred cupping glasses to leeches, which drew uncertain quantities of blood and occupied a longer period. A fat, flabby child would not bear bleeding so well as a spare one. Diuretics (which the author had failed to mention) were of great importance in later stages of the disease, according to the excellent maxim of Baglivi, "In morbis pectoris semper ducendum esse ad vias urinæ." Blisters were beneficial, but they should never be kept on longer than was necessary to make the skin red.

Dr. Edward Smith inquired of the author whether, in the termination of bronchitis, there was, in addition to the absence of air, the presence of an abnormal deposit of some kind in the air cells or in the intercellular structure. He understood the author to say that apneumatosis was produced by the blocking up of the bronchial passage with effused fluid; but it appeared to him that the deposition of such fluid would prevent the exit as well as the introduction of air. According to the proportion of residuary air to tidal air (if it was the same in a child as an adult) the plugging up of the bronchial tubes would only prevent the entrance of one part in seven, while it would keep within the air cells six parts out of seven. What, then, became of the air? He had heard no theory as to its absorption. In some conditions of apneumatosis the introduction of the blowpipe after death would cause expansion of the cells, from which it might be inferred that there was no deposit, otherwise the expansion would be prevented.

Dr. Hewitt agreed with Dr. Webster in believing that the disease was more fatal in boys than girls, except in the case of girls who died from bronchitis attendant upon hooping cough. He did not deny that pneumonia, so-called, existed to a great extent in the case of bronchial affections, but he maintained that it was not pneumonia in the true sense of the word, but apneumatosis. With regard to tartar emetic, he admitted that it might be used at the outset of the disease, and also in the case of robust children, and so with bleeding; nor did anything he had said preclude the use of diuretics. Individual cases, of course, must often be treated with some variation from the general principle. Blisters were not objectionable in themselves, but should generally be avoided as interfering with remedial measures of greater importance. The warm bath, though at times useful, was very depressing if employed too frequently. With reference to the point alluded to by Dr. Smith, there was, at the outset of the affection, an undue secretion of tenacious mucus in the finer air tubes, and, practically speaking, in the air cells themselves. If evacuated by expectoration it diminished; but when the strength decreased, and such evacuation did not take place, that effusion must increase. It should be remembered that there was a greater impediment to the entrance of air into the cells than to its exit, the expiratory force being greater than the inspiratory; thus the quantity of air in a cell would gradually diminish until it was completely emptied. Such was one explanation of the mode in which apneumatosis was produced. Another explanation was, that the mucus was drawn through the tubes towards the cells during the act of inspiration, and acted as a kind of ball-valve, preventing the introduction, but not impeding to the same extent the escape of air. In this way the mechanism of the process might be explained, more especially as connected with the depressed state of the patient, so often observed in such cases, and the want of power to make strong expiratory efforts. Dr. Smith had alluded to artificial expansion. It should be remembered that the cells of the apneumatic portion of the lung were completely destitute of air, or (when the disease had existed for some time) were more or less filled with bronchial secretion. Frequently after death the surface was found studded over with little elevations of a light yellow colour, which, on being pricked with a sharp needle, would discharge a little fluid and then subside. These were air cells, which, in consequence of the long duration of the disease, had become enlarged and filled by bronchial secretion. The effect of inflation was to bring the lung nearly to its normal appearance, and the parts so artificially dilated were scarcely to be distinguished from healthy portions.

Dr. Cursham believed, that in many cases where artificial inflation had been resorted to, the cells had never been dilated from birth. The apneumatosis was congenital.

Dr. Mayo expressed his general concurrence in the views of the author.

Mr. Theophilus Thompson said there were very many cases to which the author's views, though generally sound, would not apply, especially cases associated with pneumonia or with hot skin, tight pulse, and laboured breathing, and a generally feverish condition. He believed he had seen cases of children in states more or less analogous to that described by the author, in which calomel, antimony, and one or two leeches, were not only useful but absolutely necessary. The author had overlooked one explanation as to the mode in which the condition he had referred to might be produced, namely, a destruction, by inflammatory action, of the elasticity of the tissue about the air cells and bronchi. The danger in the use of antimony was only in its too long continuance. A jacket of scalded bran he considered preferable to a warm bath.

Dr. Peacock thought the author had attached too much importance to the collapse of the lung, and had lost sight of the condition which produced it. He did not agree with him in thinking that bronchitis in adults was a less important complaint than pneumonia. Some forms of acute capillary bronchitis produced asphyxia more rapidly than pneumonia, there being a tendency in the inflammatory action to diffuse itself rapidly over the whole of the mucous membrane, by

which the aëration of the blood was greatly interfered with. When the inflammation affected the terminal portion of the tubes the secretion was of a more viscid character than that from the bronchial tubes. When a person was thus rapidly asphyxiated, his lungs would be found, not collapsed, but extensively inflated, there having been an entire cessation of aëration, not in consequence of the lung not being permeable with air, but because, after becoming inflated, free expiration could not take place. Few good practitioners, he believed, would employ depletory measures in the cases to which the author had referred. The author's method was only applicable to a particular condition, and that condition was due more to the wide diffusion of inflammation than to the collapse of a portion of the lung. He agreed with the author in thinking it quite possible that in cases of effusion into the bronchial tubes the air might be prevented from entering, while that contained in the lung might escape in the act of expiration.

The Society then adjourned.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

November 21, 1856.

William Martyn, Esq., V.P., in the chair.

Dr. Baines introduced the subject of the

"TACHE MENINGITIQUE,"

with which he stated that he had first become acquainted during his visits to the Hôpital Necker of Paris. Dr. Trousseau was wont to draw the attention of his pupils to the occurrence of a red mark or stain which was readily observable on the skin of a large number of hydrocephalic children; to this he gave the name of the *Tache Meningitique* or *Tache Cérébrale*. Dr. Baines then proceeded to describe it as of a reddish colour, varying from a faint tinge to a more vivid raspberry hue; in some cases it has been so distinctly developed and so readily excited that the patient's friends have drawn attention to it. Its development may be the result of accident, as when occasioned by the pressure or irritation of the bed-clothes or portions of the child's dress, and in those cases it is chiefly observable on the face or neck; but it is more commonly intentionally caused, as by the pressure of the finger of the observer on the skin of the patient; when such is the case, a distinct red line marks the previous course of the finger. It is more readily observable in the face, neck, and chest than on the extremities, and will often fail to be excited in the latter parts when it is most distinct in the former; rarely, however, the reverse is the case. Though most commonly seen in patients suffering from hydrocephalus, it is said to be observed in other cases, and Dr. Baines mentioned one case of acute congestion of the brain, and another of acute pneumonia of children, in both of which this *tache* was mentioned as existing during life; but in the latter case, though the brain was healthy after death, the child had died from convulsions. As to the stage of the disease in which it is most commonly found, the author thought, from his observations, that it was more likely to be seen late in the disease, and suggested that perhaps it might have reference to the stage of effusion. With regard to its cause, in the present state of our knowledge of its nature, he could scarcely offer any sufficient explanation. He thought that it could hardly be dependent upon simple atonic relaxation of the capillaries, as occurring in exhausting diseases, because it had been observed in acute congestion of the brain and in acute pneumonia complicated with convulsions, but suggested that it was due to some altered relation between the supply of nervous power to the capillaries and the circulation, allowing of a ready dilatation of the superficial vessels when any irritation was applied to the skin. Several cases verified by post-mortem appearances, were narrated in which the *Tache* was a prominent symptom. In one it was absent altogether, and in another case which recovered, it continued as long as the symptoms of the disease continued, and then declined with them. It had been noticed also, as proved by the cases cited, though not necessarily in all such, in head cases dependent upon the irritation of teething and from worms, but what was of some practical value was the fact of its absence in cases of gastric and remittent fever of children in which the most urgent and prominent symptoms were referred to the head. All these remarks were supported by the cases quoted.

Mr. Ellis then read some notes upon

A PATULOUS STATE OF THE OS UTERI, AND ITS RELATION TO ABORTION.

First remarking upon the frequency of abortion, and its effects upon the health of the patients, he alluded to the habit into which the uterus fell of casting off its contents prematurely, and mentioned one case in which the patient aborted 27 times. The causes of abortion may be ovaline or maternal, the latter being impoverished health, leucorrhœa, uterine irritation, or irritation caused from the bladder or rectum. But he alluded more especially to a patulous state of the os uteri as a cause, in which the proper natural plug from the decidua was absent. In these cases the os uteri was open, and readily allowed the bag of membranes to protrude, and as surely as they did so, so certainly would the uterus be excited and contract. An analogous case was seen where premature labour was induced by the introduction of a piece of sponge into the upper portion of the vagina, and which by its dilatation had the effect of opening the os uteri. The causes of this state, he considered to result from inflammation, and structural changes, and in its treatment, recommended rest, and the occasional use of nitrate of silver to the patulous os uteri.

Mr. Dickinson then exhibited to the Society

A DEFORMED FŒTUS.

It was about 6 or 7 months of utero-gestation, and had been dead some days before its birth. Both hands and both feet were clubbed and on the abdomen was an external tumor, with apparently the covering of peritonæum and in communication with the cavity of the abdomen, in which the viscera, or part of them were contained. The Society then adjourned.

UNIVERSITY OF LONDON.

The following is a list of the Candidates who have passed the late Examinations for Degrees in Medicine:—

M.D. EXAMINATION.

	Medical Schools.
Blount, John Hillier. . . .	King's College.
Carter, Henry Vandyke . . .	St. George's Hospital.
Iliff, William Tiffin . . .	Guy's Hospital.
Keyworth, John White . . .	St. Thomas's Hospital.
Spackman, Frederic Robert . .	Middlesex Hospital.

M.B. EXAMINATION.

PASS EXAMINATION.

Andrew, Edwyn	University College.
Blake, James Gibbs, B.A. . .	University College.
Brown, Thomas Edwin Burton. .	Guy's Hospital.
Clapton, Edward	St. Thomas's Hospital.
Dowling, Francis Joseph . . .	King's College.
Jones, Sydney	St. Thomas's Hospital.
Maudsley, Henry	University College.
Thorowgood, John Charles . .	University College.
Rice, James	King's College.

EXAMINATION FOR HONOURS.

The following obtained Honours in the respective subjects at the M.B. Examination :—

Physiology and Comparative Anatomy.

Equal.	Brown, Thos. Edwin Burton (Gold medal) . . .	Guy's Hospital.
	Maudsley Henry, (Gold Medal) .	University College.

Surgery.

Maudsley, Henry (University Medical Scholarship and Gold Medal)	University College.
Brown, Thomas Edwin Burton (Gold Medal)	Guy's Hospital.
Blake, James Gibbs, B.A. . .	University College.

Medicine.

Blake, James Gibbs, B.A. (Gold Medal)	University College.
Thorowgood, John Charles (Gold Medal)	University College.
Dowling, Francis Joseph . . .	King's College.
Brown, Thomas Edwin Burton .	Guy's Hospital.

M.D. EXAMINATION.—1856.

Monday, November 24.—*Morning*, 10 *to* 1.

BUTLER AND BACON.

Examiner, Rev. H. ALFORD.

1. Explain the nature and use of *analogy;* and illustrate your meaning by examples. What place does it hold in the Christian evidences?

2. Prove that the *facts* of moral government are not affected by any opinions on *necessity*.

3. "The question of the immortality of brutes long perplexed the early defenders of the immortality of the soul." Why, and how is the difficulty to be met?

4. Give Butler's replies to the two objections against Revelation, (*a*) that it is deficient in evidence; (*b*) that it is not universal.

5. Self-love is distinguished from benevolence, but not therefore opposed to it.

6. What is the intention and plan of the Novum Organon? What place does it hold in the history of philosophy?

7. What, according to Bacon, are the characteristics of false philosophies, and their causes? and what his grounds of hope for the advancement of true philosophy?

Monday, November 24.—*Morning*, 10 *to* 1.

COUSIN AND STEWART.

Examiner, Mr. BURCHAM.

1. Translate and criticize the following passage:—

"Là est la première faute de Locke. Il reconnaît et proclame la méthode expérimentale: il se propose de l'appliquer aux phénomènes de l'entendement, aux idées; mais n'ayant point assez approfondi cette méthode qui était alors dans l'enfance, il n'a pas discerné toutes les questions auxquelles elle donne lieu; il n'a pas ordonné ces questions entre elles; il a méconnu et omis la question expérimentale par excellence, l'observation des caractères actuels de nos idées; il est tombé tout d'abord dans une question qu'il aurait dû ajourner, la question obscure et difficile de l'origine de nos idées."

2. What is the distinction made by Cousin between what he calls the *logical* and the *chronological* order of our ideas? Into what error in this respect has Locke fallen according to his notion?

3. "Selon Locke lui-même, l'idée d'espace et l'idée de corps sont totalement distinctes." Show this by referring to any passage or passages in the Essay on the Human Understanding.

4. Show that the idea of *cause* and *effect* has not its origin in sensation.

5. "A process of thought may be carried on by the mind, without leaving any trace in the memory." Show this from the acquired perceptions of sight, or other mental phænomena.

6. "In what does the difference between man and the brutes consist? Do their faculties differ from each other in degree only; or is there an *essential* distinction between the rational and the animal natures?" How do you answer the question?

7. Mention the various sceptical conclusions that have been deduced from the hypothesis of a moral sense.

Monday, November 24.—*Afternoon* 3 *to* 6.

CASE IN MEDICINE.

Examiners, Dr. BILLING and Dr. TWEEDIE.

R. W., 45 years of age when he came under observation, stated that he had lived freely, worked hard at his trade as carpenter, and had been much exposed to cold. Nevertheless he appeared robust and healthy until about nine months previously, when he perceived a small circular swelling in the epigastric region, which in a few days began to pulsate, and as it increased in size became attended with severe pain, radiating through the abdomen, but felt most acutely in the back, and was aggravated by exertion. He continued his employment until two days before he was admitted into the hospital, the pain being now so severe as to prevent his working. About three months after the first appearance of the swelling, he began to suffer severely from irritability of the stomach, the food being rejected a few minutes after it was swallowed. This symptom continued till the day of his death. He never suffered from dysphagia, nor from pulmonary or cardiac affection, the most distressing symptoms being irritability of the stomach and pain in the back. The tumour extended from the epigastrium to the umbilicus, and pulsated violently, especially in the direction from behind forwards. On further examination, a portion of the tumour was discovered projecting towards the left hypochondrium; it felt quite fluid, and on the application of the stethoscope, a sharp bruit de soufflet was heard, while immediately over the aorta there was a deep hoarse murmur.

Three days before death he became much prostrated, and he died suddenly.

In commenting on this case, state your opinion as to the pathology or nature of the disease, and your reasons for the conclusions you have formed. Mention with what other diseases it might have been confounded. Sketch the treatment you would have suggested in the progress of the disease.

Monday, November 24,—*Afternoon*, 3 *to* 6.

COMMENTARY ON A CASE IN MIDWIFERY.

Examiner, Dr. RIGBY.

Mrs. J., aged 28, stout, fair, florid, healthy, at the full term of her first pregnancy.

Pains commenced at noon—they were in the back and loins; at 6 p.m. the os uteri was dilated to about the size of a shilling, its edge very thin, the head presenting. The os uteri remained in this state till midnight; the pains becoming gradually weaker and producing no effect upon it.

The pulse was rather soft and small; but the skin was dry, the head hot, and face flushed. The secretion of mucus had diminished considerably; the vagina was hot, the process of dilatation had made no advance.

The Practitioner bled her to about ʒxij. or ʒxiv., and gave her a draught of Liq. ammon. acetatis with ɱxx of Vinum antimonii potass. tart.

The pulse became fuller and stronger immediately after the VS, and this was followed by a gentle perspiration. The vagina became cooler, its mucous secretion returned; the condition of the os uteri was more favourable for dilatation. Pains came on again, and, though apparently weak, had a far greater effect in dilating the os, and pushing down the head of the child. As it passed through the os uteri active bearing-down efforts came on, and a healthy living child was born.

If the practitioner was justified in bleeding his patient during labour, what were the indications which guided him, and in what manner did the VS act beneficially?

The reporter of the case has merely stated that the os uteri became "more favourable for dilatation" after the VS: describe the condition of a healthy os uteri which is favourable, and that which is unfavourable for dilatation.

The head is stated to have been in the first position—describe this position.

Tuesday, November 25.—*Morning*, 10 *to* 1.

MEDICINE.

Examiners, Dr. BILLING and Dr. TWEEDIE.

1. Describe the causes by which the heart may be displaced.

2. Describe how pneumo-thorax may be produced, its signs and treatment.

3. Mention the circumstances which determine the prognosis in diseases of the heart.

Tuesday, November 25.—*Afternoon*, 3 *to* 6.

1. Describe the forms and treatment of erysipelas.

2. Give the anatomical characters, diagnostic symptoms, and treatment of pericarditis.

3. Sketch the secondary affections which have their origin in dyspepsia, and their treatment remedial and dietetic.

Monday, November 24.—*Afternoon*, 3 *to* 6.

COMMENTARY ON A CASE OF SURGERY.

Examiners, Sir STEPHEN HAMMICK and Professor FERGUSSON.

A man, about 25 years of age, riding a restive horse, received a contusion in the perinæum, in alighting from the pommel of the saddle; in the course of the next six hours he suffered pains in the perinæum; was conscious of considerable swelling there, and was unable to pass a drop of water, while his desire to do so was extreme. Ten or twelve hours elapsed from the time of the accident before he was seen by a Surgeon, and the man's distress was great. After the trial of several methods of relief, the Surgeon at last accomplished all that his skill could suggest at the time, and left his patient in comparative comfort. At the next visit, twelve hours after,

the patient was in as great distress as before; and again the Surgeon relieved him. On this occasion he took precautions against further annoyance in this way, and when he called on the second day after the accident, he found the patient wonderfully well, and anxious to be permitted to leave his bed. To this request the Surgeon would not consent, but after the lapse of a few days more it was granted, and for the time professional attendance ceased. Within the next two or three years the Surgeon's assistance was several times required, and on each new occasion there was increased difficulty in giving relief; at last the Surgeon, when called again, felt baffled in all his ordinary appliances; at this time the lower part of the abdomen was tense, swollen, and painful, particularly when touched, during the needful interference of the Surgeon. There had been considerable loss of blood from the urethra; there was a hard round swelling, the size of a walnut, in the perinæum; the skin was covered with a cold, clammy sweat, the pulse was small and quick, the tongue was dry and furred, and the patient beseeched the Surgeon to do whatever he thought right to give him relief. The Surgeon now performed an operation, during which the patient was quite unconscious; and in a quarter of an hour after, having in the interval regained his intellect, he expressed himself much relieved. and thanked the Surgeon for all he had done. Close professional attendance in this case was needful for about three weeks or a month; after this, the Surgeon's aid was more rarely required, and, after a period of four months, the patient was rarely seen by his professional attendant, who, however, felt considerable anxiety regarding the ultimate result of this case, which had caused him much trouble and distress of mind.

Please to state what you consider was the injury sustained in this case, with its nature and seat, and its effects, both local and constitutional. Describe what you think the Surgeon did or should have done, and how at last you suppose he gave relief. Why was the patient in as great distress twelve hours after as ever, and what did the Surgeon do to obviate the occurrence of a similar condition within the next twelve hours? What do you think was the treatment for the next three or four weeks? What do you suppose caused the increasing difficulty and the mode of relieving the patient during the next two or three years, at the period when he required surgical assistance; and what was the nature of the crisis when an operation was determined on, by what means was the patient rendered unconscious, and what operation do you think was performed, or was there any room for diversity of practice? Give your views freely and liberally on this subject; and, at the same time, the reasons which induce you to hold the opinions which you may be pleased to express. In conclusion, state why the Surgeon should have felt more than the usual anxiety regarding the ultimate result of this case.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, November 27, 1856:—

Bailey, James Francis, Blackburn.
Currie, Thomas Henry, Bridsham, Norfolk.
Halmes, William, E.I.C.S.
Smith, William Abbotts, New Zealand.
Temperley, George, Northumberland.
Warren, Richard Thomas, Wivenhoe, Colchester.
Witten, Edward Walter, Clerkenwell.

DEATHS.

Farley.—November, Staff Assistant-Surgeon Nathaniel Farley, Esq., late of Clones, M.R.C.S.E. 1855. Appointment dated 1st of June, 1855, to Turkey.

Fiske.—Lately, at Saffron Walden, Samuel Fiske, Esq., Surgeon. Mr. Fiske was formerly in good practice at Saffron Walden, in partnership with his brother, but had retired for some years, except that he continued to visit gratuitously many of his former poorer patients and their families. He had served the office of Mayor six times, and was an active and impartial Magistrate. He was one of the originators of the Saffron Walden Horticultural Society, of which he was the efficient Secretary from its formation in 1819, to the time of his decease. At his interment on Wednesday week, the Members of the Corporation attended, and the Council followed in procession through the town. Every mark of respect to the memory of the deceased was paid by the residents, and at a late hour at night the Saffron Walden loyal band performed the "Dead March in Saul" in the Market-place.

Jeston.—Nov. 24, at Henley-on-Thames, Thomas Jeston, Esq., Surgeon, of Nettlebed, Oxon, aged 32; M.R.C.S.E., and L.S.A., 1848. District Medical Officer of the Henley Union.

Murray.—Recently, at Winderadun, Lake George, New South Wales, James Fitzgerald Murray, Esq., M.D., A.B., F.C.S., and Member of the Legislative Council of New South Wales.

Rumsey.—Nov. 24, at Bath, John Crook Rumsey, Esq., Surgeon, of Solihull, Warwickshire, late of Beaconsfield, Bucks, aged 46, eldest surviving son of the late Dr. Nathaniel Rumsey, of Remenham Hill, Berks.

APPOINTMENTS.

Royal London Ophthalmic Hospital.—Dr. Robert Martin has been elected Physician, and Mr. Streatfield Assistant-Surgeon, to this Institution. It is said that upwards of 300 guineas have been added to the funds, in consequence of new governors having been made for the purposes of the latter election.

Royal Institution of Great Britain.—At the General Monthly Meeting, held Monday, December 1, 1856, the Secretary reported that the following arrangements had been made for the Lectures before Easter, 1857:—Six Lectures on "Attraction" (adapted to a Juvenile Auditory), by Michael Faraday, Esq., D.C.L., F.R.S., etc., Fullerian Professor of Chemistry, R.I. Twelve Lectures on "Physiology and Comparative Anatomy:"—viz., Eight Lectures on "Sensation and Motion," and Four Lectures on the "Principles of Natural History," by Thomas Henry Huxley, Esq., F.R.S., Fullerian Professor of Physiology, R.I. Eleven Lectures on "Sound," by John Tyndall, Esq., F.R.S., Professor of Natural Philosophy, R.I. Ten Lectures on "Leading Questions in Geology," by John Phillips, Esq., F.R.S.

The late M. Gerhardt.—This eminent chemist, whose researches in the department of organic chemistry have been of such high importance, and whose loss, to use the words of the Minister of Instruction, when making provision for his destitute family, learned Europe deplores, is another instance of value being appreciated only when too late. Some of the aid now bestowed upon those he has left behind would have enabled him to have pursued his expensive chemical researches, unimpeded by the privations and anxieties which embarrassed and eventually terminated his career, while yet quite a young man. After struggling on in Paris he at last obtained a Professor's chair at Montpellier; but soon found a provincial existence insupportable. "There," said he to a friend, "they do not live, unless they call living mere eating, digesting, and sleeping; but as I did not feel disposed to die either of apoplexy or *ennui* I have left." After seeking in vain for some public professorship in Paris, he determined upon opening a private school of chemistry; but finding everything so dear in what is now well nigh the dearest capital in Europe, and unable to provide for his expensive investigations, he again determined to go into what he termed exile, by repairing to Strasburg. The friend to whom he confided his new project comforted him by assuring him that those in power would not let him remain long unemployed. "God grant it may be so!" he replied, with an evident presentiment to the contrary, which was but too well justified, as he soon after died. Like Valleix, another recent scientific man of eminence, he died without the decoration of the Legion of Honour having been conferred upon him. "My friends forgot it," he observed, "and I did not ask for it." His important work on organic chemistry, which he termed "Suite à Berzelius," in four volumes, was completed prior to his death.

The Scottish Hospital.—The annual meeting of the Governors was held on Monday. From the Report it appeared that the income for the past year amounted to £3102 3s., and that, after paying £2086 18s. in relief, with some other items, there remained £482 16s. balance in hand.

Meteorological Observations in France.—There are now fourteen stations established in France, at which meteorological observations are made, and daily telegraphed to the Government and the Paris Observatory. They are situated at Dunkirk, Mézières, Strasbourg, Tonnerre, Paris, Havre, Brest, Napoléon-Vendée, Limoges, Montauban, Bayonne, Avignon, Lyons, and Besançon.

Dr. Kane, the Arctic explorer, has left England for the West Indies.

It is reported that the Lady Nurses who attended the Hospitals in the East have been presented by the *Turkish* Government with diamond brooches of the value of £40 each. The *English* Government, as yet, have not in any way acknowledged their services.

The Queen's Hospital, Birmingham.—At the annual meeting of the Governors and friends of this Institution, on Friday week, a deputation from the Aston Fête Committee attended, and presented a cheque for £29, which closed the account for the first Fête, by which the noble sum of £2300 had been raised to liquidate the debt hanging over the Institution.

The Fate of Sir John Franklin and his Surgeons.—Sir Roderick Murchison contends that there is a broad distinction between the wished-for restricted search for Sir John Franklin, and all the former expeditions sent in pursuit of our missing countrymen, "in none of which," he observes, "did any loss of life occur among the numerous officers employed, save in the case of poor young Bellot. In short," adds Sir Roderick, "as we now know precisely where to go, and also that the voyage along the coast of the mainland of North America has been successfully made to and fro by Captain Collinson in a sailing ship (*i.e.* to within a short distance of the circumscribed track to be examined by exploring parties), and further, as this distinguished Arctic officer pledges his reputation that he can with much greater facility take thither a large screw vessel and bring her safely back, I trust that the public will be induced to think that my friends and self have not advocated a visionary scheme which might lead to ndefinite researches."

Chatham.—Notwithstanding the immense number of invalids discharged from St. Mary's invalid depôt during the past year, there are still upwards of 1500 sick and wounded men at that establishment.

Mortality at Sea.—Ships arriving at New York report an alarming mortality on board. The ship *Donan*, which arrived on November 13, had 24 deaths on the passage. The *Howard* and *Humboldt*, arrived on the 14th, had respectively 26 and 37 deaths on the voyage. We trust that rigid inquiry will be instituted as to the cause of this frightful mortality. The Havre journals announce the arrival in that port of the French brig Charles, Captain Ros, with only himself and a cabin-boy on board, all the rest of the crew having died on the passage. She left the port of Santo Domingo on the 28th of Sept., at which time several of the seamen were recovering from illness, and hoping to improve still more from the sea air, as generally occurs. In place of that they became worse, and the low fever under which they were labouring having attacked the remainder of the crew, they all died one after the other. The captain was compelled on several occasions to stand for twenty-four hours together at the helm.

The International Statistical Congress, which held its second meeting in Paris in 1855, has decided on meeting for the third time in Vienna, in 1857.

Cholera is raging at Teheran, and the Shah of Persia is said to have died of it.

Jamaica is unhealthy at present. There is much sickness in Newcastle Barracks, although generally considered so healthy, being 3000 feet above the level of the sea.

The Parish that must not be interfered with.—At a meeting of the Marylebone Vestry on Saturday, Dr. Bachoffner thus described a nuisance in that parish. We recommend the "*non-medical facts*" of it to the attention of Mr. Tubbs:—A gentleman residing in Crawford-street, lived in a house adjoining one which had been unlet for some months past, and the whole neighbourhood had suffered considerably for a long period from the foul smells arising from the sewers of the unoccupied house. About two months ago this gentleman lost a son through fever, arising from this abominable nuisance, and no less than nine of his family have since been seized with the same complaint, and are in a dangerous state. It was evident that something should be now done to put down so frightful an evil. When the nuisance was complained of, some months ago, no steps were taken to remedy it, and it had gone on unabated.

Mortality Notabilia.—In the week that ended on Saturday the deaths registered in London were 1158. In the ten corresponding weeks of the years 1846—55 the average number was 1162; and if this is raised by a tenth part, to admit comparison with the deaths of last week, which occurred in an increased population, it becomes 1278. The deaths are, therefore, less by 120 than the corrected average. The mortality from diseases of the organs of respiration begins to increase rapidly at this season; and last week the deaths referred to this head were 296, whilst the corrected average of corresponding weeks in previous years is 276. The severe cold, which did not set in till towards the close of the week, will be followed, it is to be feared, by results of still greater numerical value. In the class of zymotic diseases measles appears very distinctly to be on the increase. Of 48 persons who had attained their eightieth year, or were in a still more advanced stage of life, 7 were 90 years old or more, and the oldest was the widow of a Russia merchant, who died at Clapham Rise at the age of 99 years.

Births.—The births of 853 boys and 804 girls, 1657 children, were registered. Average 1449.

Meteorology.—The mean height of the barometer in the week was 29·677 in. The highest reading was 30·06 in. at the beginning of the week. The mean temperature was 39·3°, which is 2·5° below the average of the same week in 38 years. The highest temperature occurred on Sunday, the 23rd, and was 58°; the lowest on that day was 47°; and the mean 51·7°, which is 10° above the average. The mean of Monday was 7·2° above the average. The temperature then fell considerably; the mean during the rest of the week was on every day below the average, and on Saturday it was 29·3°, or 12·6° below it. The highest reading on Saturday was only 36°, and the lowest 24·3°. The range of the week was 33·7°. The mean dew-point temperature was 34·6°, and the difference between this and the mean air temperature was 4·7°. The mean temperature of the water of the Thames was 44·2°. The lowest temperature of the river was 42·3° on Saturday. Wind north-west. Amount of rain or melted snow, 0·52 in. On Saturday night the reading of a thermometer on grass was so low as 9·5°. Horizontal movement of air, 865 miles; electricity positive, with strong tension.

Deaths in Public Institutions for the Weeks ending Saturday, November 22 and 29:—

—	In the Week ending Nov. 22.			In the Week ending Nov. 29.		
	Males.	Females.	Total.	Males.	Females.	Total.
Workhouses	67	64	131	43	67	110
Prisons	1	1	2	..	..	..
Military and Naval Asylums	7	..	7	5	..	5
General Hospitals	24	17	41	25	17	42
Hospitals for Special Diseases	2	6	8	5	3	8
Lying-in Hospitals	..	..	..	..	..	..
Military and Navy Hospitals	1	..	1	7	..	7
Hospitals and Asylums for Foreigners	1	..	1	2	..	2
Lunatic Asylums	2	4	6	5	1	6
	105	92	197	92	88	180

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West	376,427	1	9	..	7	2	3
North	490,396	3	12	9	6	4	15
Central	393,256	1	7	6	5	4	12
East	485,522	..	4	7	6	3	13
South	616,635	1	11	16	17	6	10
Total	2,362,236	6	43	38	41	19	53

ORIGINAL LECTURES.

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT OF THE DISEASES OF THE EAR.

DELIVERED AT

St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.,
Aural Surgeon to St. Mary's Hospital, Lecturer on Aural Surgery at St. Mary's Hospital Medical School, and
Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

(Reported by JAMES HINTON, Esq.)

LECTURE VIII.—(*Concluded from p. 536.*)

The Globular Cellular Polypus.—The third kind of polypus developed in the external meatus is the globular cellular polypus. I have given this name to a growth which differs considerably from those belonging to the preceding classes. It consists of a single globular mass, perfectly smooth on its surface without any appearance of granulation ; it is confined to the inner fourth or sixth of the meatus, from the upper part of which it is usually developed, and it hangs down like a curtain, wholly or partially concealing the membrana tympani. It is of a deep red colour, and it is softer than the ordinary cellular polypus, and it does not generally increase in size larger than a small pea. This growth usually occurs in children or in young persons ; it is attended by a mucous discharge which is often very offensive, and the secretion, like that from other forms of polypus, consists of epidermoid cells which give a milky appearance to the water after syringing, and it also contains fine threads of mucus. This kind of polypus may exist during several years without producing any severe symptoms ; it has hitherto not been distinguished from the other kinds of polypus. It is known from the disease I have elsewhere called chronic catarrhal inflammation of the dermoid meatus, in the discharge containing flocculi of mucus, like small particles of thread, and upon its always presenting a red mass at the inner extremity of the meatus. This affection also differs from catarrhal inflammation of the meatus, in ever terminating in disease of the bone, the discharge apparently proceeding from the surface of the polypus only, to which part the disease is limited. The affection of the ear with which the globular vascular polypus is most liable to be confounded, is catarrhal inflammation of the mucous membrane of the tympanum. In some of these cases the mucous membrane of the tympanum is of a deep red colour, and so much tumefied, that it projects into the meatus for a line or a line and a-half beyond the position occupied by the membrana tympani, previous to its destruction. Upon examination of the growth by means of a speculum and lamp, it is not easy to determine which of the two diseases above noticed is present. The examination of the discharge is, however, sufficient to decide the question ; although in both affections there is floccular mucus present, that accompanying the polypus is composed of small thread-like particles, while that emanating from the mucous membrane of the tympanum presents large, irregular-shaped masses, having generally a yellow colour. The history of the case will also generally aid the surgeon in forming a diagnosis ; the vascular, globular polypus generally appears without the manifestation of any very decided symptom ; perhaps the appearance of the discharge is the first indication of its existence ; whereas the affection of the tympanum generally originates in an attack of acute inflammation, and it often arises during scarlet fever or measles.

Treatment.—The treatment of this kind of polypus is much more simple than that of the two species which have been already described ; nevertheless, unless the true nature of the disease be ascertained, it is useless to attempt to combat it by the use of the astringent applications ordinarily prescribed to arrest discharges from the ears. This affection stands between the ordinary vascular polypus and catarrhal inflammation of the dermoid meatus ; the former is wholly uninfluenced by the use of the strongest astringents ; the latter is generally curable by weak solutions of them ; the vascular globular polypus is affected by astringent applications, but they require to be of considerable strength. The course of treatment which I am in the habit of following consists in having the meatus of the affected ear syringed out with tepid water, so as to remove all discharge, and after the ear has been turned towards the shoulder of the affected side, to allow of the water running out, three or four drops of an astringent solution are to be dropped into the meatus, and the ear closed for half an hour by a portion of cotton-wool moistened with it. This course may be repeated twice, thrice, or oftener, during the day, care being taken that the sediment from the solution be removed before the drops are again used. The preparations I have used are the acetate of zinc, the acetate of lead, alum, and tannin ; but that first named has, I think, answered best. This species of polypus may often be removed in the course of a week, or from that to a fortnight ; and, to prevent any congestion in the tympanic cavity, a slight discharge from the surface of the mastoid process has generally been kept up during the time that the astringent solution has been used.

Globular Vascular Polypus.—Discharge for three years.—Cured by a solution of Liquor Plumbi.—Miss F. A., aged 12, of a rather weakly constitution, was brought to consult me on the 30th of March, 1850. Her mother stated, that she had been dull of hearing during several years in the left ear, and this dulness has of late so much increased, that when the right ear is pressed upon the pillow she cannot hear even loud voices. During the last three years there has been a discharge from the ear, which has sometimes been very offensive, and it has been at times of a dark colour, especially in a morning. There has been no complaint of pain in the ear, but a tenderness has been experienced below it. At times there has been pain over the left eyebrow, which has also extended to that side of the head. Upon examination, it was found that the watch (of which the natural hearing distance was three feet) was heard only when placed in contact with the ear. By the aid of the speculum, a globular red growth, like a polypus, was observed to conceal the membrana tympani, with the exception of a small semi-lunar-shaped part at its inferior margin, about half a line in diameter at its centre, which was quite opaque. As this growth did not extend far into the meatus, as it was of a deep red colour, and its surface quite smooth, it presented an appearance very analogous to that of the thickened mucous membrane of the tympanum, which, in some cases, becomes so much hypertrophied as to project into the meatus, and occupies a position nearer to the orifice than did the membrana tympani previous to its destruction. The presence of the membrana tympani was, however, ascertained ; by the use of the otoscope, air was heard to enter the tympanic cavity, and it did not pass into the meatus ; the small portion of the membrana tympani visible, was observed to be pressed out and rendered tense and more white when the tympanic cavity was filled with air. It was therefore evident that the diseased growth was a polypus.

The treatment pursued consisted in applying to the surface of the polypus thrice daily a solution of the diacetate of lead ; and, as I was not to have the opportunity of seeing the patient for between two and three months, it appeared desirable that it should not be so strong as it would otherwise have been advisable to use. The drops were composed of six drops of liquor plumbi to an ounce of water.

June 18.—The discharge has nearly disappeared, and, upon examination, the polypus is reduced to the size of a large pin's head. The hearing was improved, the hearing-distance of the watch being two inches, instead of being heard only when in contact.

I had not an opportunity of seeing this patient again, but some little time after the last visit I heard that the discharge had ceased, and the hearing had so much improved that she was considered cured.

Globular Polypus in Right Ear ; Broken up by Forceps, and a Solution of Liquor Plumbi applied.—Cure.—Master A. H., aged 16, was first seen by me on the 13th of April, 1850. Both tonsils were enlarged ; he had a tendency to glandular enlargements, and was, at the time of his visit, far from being in strong health. The history of the case was as follows :—At six years of age he suffered from an attack of scarlet fever. Subsequent to it he was dull of hearing, and this dulness has increased during the last two years and a-half ; has had dis-

charge of an offensive character from the right ear during the last eighteen months.

Right Ear.—Upon inspection, a polypus was observed at the inner extremity of the meatus, growing from its upper part near to the membrana tympani. This polypus was red, globular, and had a smooth, shining surface. The discharge, upon being removed from the meatus, was observed to be white, like milk—not viscid; and it consisted of rounded cells, similar to those excreted in catarrhal inflammation of the mucous membrane of the tympanum; the nuclei of these cells were rendered very distinct by the addition of acetic acid. By aid of the otoscope, air is heard to enter the tympanic cavity, and, in so doing, to produce a loud sound, like that attendant upon the sudden distension of a bladder by air. The watch was not heard over the ear; it was heard when pressed on the temple.

Left Ear.—The membrana tympani was dull on its surface, and white. Air passed into the tympanic cavity, producing a sound similar to that in the right ear. Hearing-distance a quarter of an inch.

April 17.—By means of the rectangular forceps the outer part of the polypus was broken up; it was very sensitive, and bled slightly. A solution of diacetate of lead in water (four grains to the ounce) was ordered to be dropped into the ear thrice daily, and a cantharidine cerate was applied to the nape of the neck.

25th.—The discharge much diminished, and its offensive odour has disappeared; the polypus is diminished to one-third of its former size, and the membrana tympani is seen beyond its lower border.

May 4.—Much the same; prescribed a solution of chloride of zinc (ten grains to the ounce) to be dropped into the ear.

16th.—The discharge has disappeared; hearing so greatly improved that he thinks he sometimes hears quite well; the roots of the polypus only remain. This treatment was continued, and when I last saw the patient, on the 13th of September, he was quite well.

In the following case I adopted a rather more active plan of treatment. Being aware from actual examination that polypoid growths of the nature now under consideration are extremely soft, in order to remove them more rapidly I resolved to apply to them an astringent of much greater strength than those previously used, and the complete success of this proceeding was very manifest.

Globular Vascular Polypus; Destroyed by a strong Solution of Acetate of Zinc.—Miss T., aged 21, of fair complexion, and in good health, applied for advice on the 13th of January, 1852. The history of the affection is, that, seventeen years ago, after an abscess behind the right ear, its hearing power considerably diminished and has never returned. Six months ago discharge issued from this ear, and has continued to do so up to the present period without any intermission. Upon examination of the right ear, the watch was only heard when in contact; the meatus contained a considerable quantity of discharge, which was found to consist of tenacious thready particles of mucus and mucous cells. At the inner extremity of the tube was a globular-shaped polypus of a red colour; it was attached to the upper part of the membranous meatus, close to the membrana tympani, which it wholly concealed, with the exception of a small semilunar-shaped portion seen at its lower border.

Left Ear.—Hearing distance one inch. Membrana tympani white, like cartilage.

Treatment.—The right ear to be syringed out with tepid water thrice daily, and after each operation four minims of a solution of acetate of zinc (forty grains to the ounce) to be dropped into the ear. A small portion of vesicating paper to be kept applied over each mastoid process.

Jan 15.—There was slight pain for half an hour after the first three applications of the drops, and yesterday the patient complained of a sensation as if the ears were distended. The discharge is diminished in quantity. The polypus had a greyish colour, bled upon being touched, and appears partially broken up. Large particles of the acetate of zinc had collected on the surface of the polypus.

19th.—Polypus smaller; no discharge; has had considerable aching in the ear. To syringe with warm water, and to omit the use of the drops.

22nd.—The pain has ceased; there is no discharge; the polypus has wholly disappeared. The membrana tympani is now seen; its upper and posterior part is white and thick; at its anterior part there are two small apertures, through which the mucous membrane of the tympanum is seen to be red and thick; the hearing has improved; the watch is now heard by the right ear at a distance of three inches, by the left at a distance of two inches. Subsequent reports from this patient state, that the discharge has not again returned, and that the hearing continues to improve.

LECTURES
ON
GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.,
Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

LECTURE IX.

(Continued from page 588.)

The *Euryalidæ* differ from all the other *Ophiuridea* in the division and subdivision of the arm, and in the more imperfect development of the antambulacral, lateral, and superambulacral plates.

The skeleton of the *Asteridea* (Fig. 4 D), again, departs as much from that of the *Ophiuridea* as from that of the *Echinidea*, notwithstanding the greater external resemblance to the former. In some cases, the antambulacral portion of the skeleton is composed of well-defined plates or ossicles (*Astrogonium*); but, in others, it for the most part consists of a mere network (*Asteracanthion*). The ambulacral skeleton is more definite in its composition, consisting always of a double series of median ambulacral ossicles, articulated together internally, and abutting externally, upon a corresponding series of "adambulacral" ossicles, situated along the equatorial line between the ambulacral and antambulacral regions. A single or double series of peculiarly formed "marginal" ossicles are frequently developed, more particularly in the pentagonal forms, such as *Goniodiscus*; and, finally, the space left on the ambulacral surface between the adambulacral ossicles of any two ambulacra and the margin, is filled up by the "intermediate" ossicles, which are, of course, numerous in the pentagonal forms, and few or obsolete in the stellate forms, in accordance with the space which they have to occupy.

The oral processes are formed by the junction of two adjoining adambulacral ossicles, and there is no *torus*, nor any representative of the *paleæ angulares* of the *Ophiuridea*. In those *Asteridea* which possess no anus (*Astropecten*, *Luidia*, *Ctenodiscus*), small ossicles are seen in the interior of the arms, extending from the ambulacral to the intermediate or marginal ossicles. These are the "jugal ossicles" of Meckel.

The spines of the *Asteridea* are comparatively small, and never so regularly articulated as in the *Echinidea*; they not unfrequently assume the form of a stem supporting a stellate or brush-like expansion at its free extremity, and these receive the name of *paxillæ*.

In the *Crinoidea*, the skeleton has the form of large plates, which are sometimes developed upon the ant-ambulacral region alone; in other cases, they extend into the ambulacral region. The apical region is inclosed by from three to five of these plates—the *basalia*, which, in *Comatula*, are fused into a single piece, to which peculiar-jointed appendages or basal cirri are attached (Fig. 2 C *k*); while, in other Crinoids, they rest upon a stem, composed of a longer or shorter vertical series of plates, each the homologue of such coalesced *basalia*, and giving attachment, in like manner, to cirri.

The lower end of the stem may send out root-like processes of attachment, by which the Crinoid is firmly fixed to its submarine bed.

Above the basalia, the calyx, when most simply constructed, presents five series of plates, radiating towards the arms, with whose proximal ossicle the terminal one of the series articulates. These are the *radialia*. But in some cases a series of plates, the *parabasalia*, alternating with both, intervenes between the *radialia* and the *basalia*. Furthermore, the *radialia* may not meet laterally; but between any two, or all the series, plates may be interposed, which are then called *interradialia*. Besides this, the arms, which are usually articulated in pairs to the terminal *radiale* (or *axillare* as it is then called), may not at once become free, but may contribute to form the calyx,

"interdistichal" and "interpalmar" plates being developed between their divisions. The arms of the Crinoids may either remain simple, or may divide and subdivide, so as to form expansions, whose ramifications usually remain perfectly free from one another; but in a Crinoid, which Müller has lately described, under the title of *Anthocrinus* they are united together, so as to form a network. Lastly, the oral region is, in many Crinoids (*Actinocrinus*, e.g.), covered with large plates.

The ossicles of the arms of the Crinoids are united by muscles, and traversed by a central canal. Each ossicle gives attachment to a jointed "pinnule."

The brachial ambulacra present only a row of spine-like calcareous processes on each side—the *paleæ ambulacrales*—but, according to Müller, the calycine ambulacra, at least in *Pentacrinus Caput Medusæ*, are further supported below by a series of median plates, nearly corresponding in position with the ambulacral ossicles of the *Ophiuridea;* and besides these, they have lateral adambulacral plates supporting the *paleæ* (Fig. 2 K).

The inter-ambulacra of the calyx in *Pentacrinus*, are paved with small flattened plates, provided with perforations, which lead under the inner membrane, but give exit to no soft processes of any kind. In *Caryocrinus* similar pores are found on the antambulacral surface of the calyx.

According to M. Duchassaing, (a) the inter-ambulacra terminate orally in the *Pentacrinus Caput Medusæ* in five triangular valve-like processes, which are fringed with strong spines, and, when closed, completely hide the circular mouth which lies beneath them in the soft oral perisoma.

In the genus *Platycrinus* the oral surface of the calyx is produced into a great proboscis, covered with many plates, while in *Eucalyptocrinus* a similar proboscis is produced into five great solid buttresses, into whose interspaces the arms are received when at rest.

The composition of the skeleton in the extinct *Cystidea* is, in the main, analogous to that which obtains in the Crinoids, the cup-like or pyriform body is occasionally supported on a distinct stem, being composed of plates analogous to the basalia, parabasalia and radialia of the Crinoids. To these must be added minute plates, surrounding what is regarded as the oral aperture, and a cone formed of small triangular plates, which is situated interradially, and from being supposed to indicate the reproductive aperture, has been called the *ovarian* (more properly, *genital*) *pyramid*.

With regard to the ambulacra, there is every reason to believe that they were entirely brachial, and supported on free arms in *Echinoencrinus*, *Prunocystites*, *Cryptocrinites*, etc., while in *Apiocystites*, *Pseudocrinites*, *Agelacrinites*, they were as completely calycine. Their minute structure in the latter cases has not, as yet, been made out, but is, probably, analogous to that of *Pentremites*.

In the *Blastoidea*, of which the genus *Pentremites* is the representative, Roemer has shown that the calyx is composed of basalia, which support five radialia, deeply cleft above, and embracing the apical halves of the ambulacra, whose oral halves are included between the five déltoid inter-ambulacral pieces which surround the mouth. At the oral extremities of the inter-ambulacra are four double genital apertures, and a fifth divided into three portions, of which the median appears to represent the anus, while the other two are genital. The ambulacra present a double series of transversely-elongated ossicles, supporting pinnulæ at their outer extremities. Beneath these ambulacral ossicles lies a single plate, separated from the interior of the body by canals, arranged parallel with one another and with the median line of the ambulacrum. It seems possible that this elongated ambulacral plate may be the homologue of the calycine antambulacral plates in *Pentacrinus*, but the nature of the subjacent canals is very obscure.

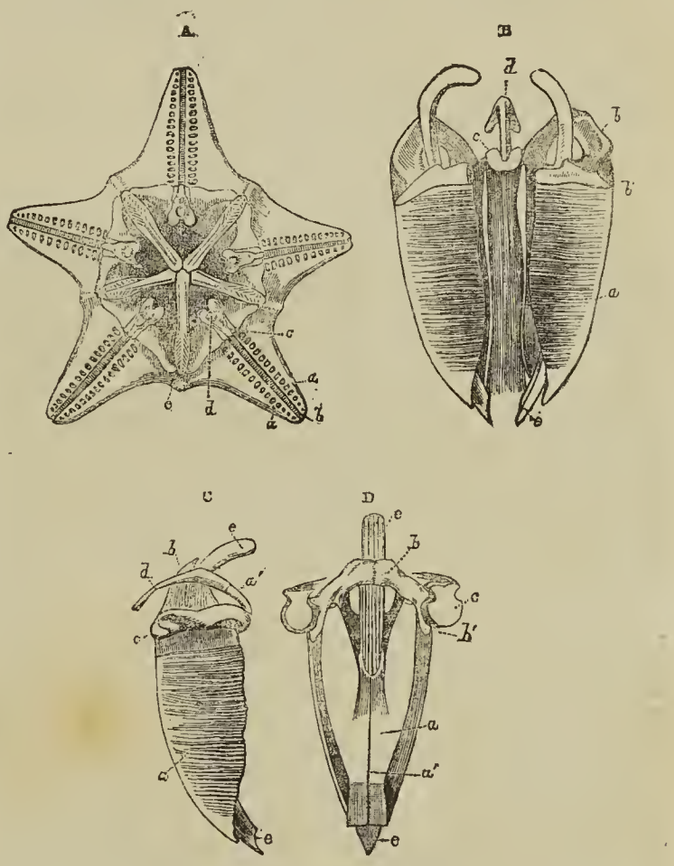
In the *Holothuridea*, the skeleton no longer forms a continuous mass, as in the preceding order, but consists of detached, usually reticulated plates, presenting a very remarkable form in such genera as *Chiridota* and *Synapta*. There are no articulated spines.

In their internal organization, the Echinoderms present almost as much variety as in the structure of their hard parts. The alimentary canal is, in the *Holothuridea*, a long tube, without any clear distinction into stomach and intestine, bent upon itself, and terminating inferiorly in a muscular cloaca, which opens at that end of the long subcylindrical body, which is opposite the mouth. Bundles of cœca, the "Cuvierian" glands, open into the cloaca. In the *Echinidea*, the œsophagus is usually distinct, but there is no further differentiation of the alimentary canal, which is disposed spirally around the walls of the corona, to which it is attached by a mesentery. In the *Crinoidea*, the alimentary canal is very short, and makes a single close spiral turn, the elevated tubular anus being placed in one of the inter-ambulacral spaces, close to the mouth. (Fig. 2 C *o*). The majority of *Asteridea* are provided with an anus, while in *Astropecten*, *Luidia*, and *Ctenodiscus* it is absent. In all, the mouth opens into a wide stomach, from which double cœcal processes extend far into the arms. In those *Asteridea* which possess an anus, a very short intestine, provided with glandular appendages, is separated by a pyloric constriction from the stomach. The *Ophiuridea* have neither anus nor brachial cœca, the alimentary canal consisting of a simple cœcal sac. The alimentary canal of the *Blastoidea* and *Cystidea* probably resembled that of the Crinoids.

The *Echinidea*, the *Holothuridea*, and the *Ophiuridea*, possess an oral skeleton, which attains its highest development in the so-called "Aristotle's lantern" of the ordinary sea-urchin.

This apparatus (Fig. 5) consists of five, hollow, wedge-shaped, calcareous pieces—the *alveoli*—each of which is composed of two halves united together in the middle line, while each half again consists of a superior epiphysis, and an inferior principal portion, united together. Each alveolus serves as the socket for a long tooth, shaped somewhat like the incisor of a Rodent, harder externally than internally, so as always to develope a sharp edge with wear, and constantly growing from its upper extremity. The five alveoli, if fitted together, form a cone, whose applied surfaces are united by strong transverse muscular fibres, while superiorly, the epiphyses of each pair of alveoli are connected by long radial pieces, articulated to their

Fig. 5.



A. Dentary apparatus of a *Clypeastrid* (after Müller).—*a*. Alveolus. *d*. falx. *e*. Tooth. B, C, D. Dentary apparatus (Aristotle's lantern) of *Echinus sphæra*. B. Two of the five chief component parts of the lantern apposed and viewed laterally. C. Lateral view, and D. back view of a single part. *a*. Principal piece of alveolus. *a'*. Suture with its fellow. *b*. Epiphysis. *b'*. Suture of epiphysis with principal piece. *c*. Falx. *d*. Radius or compass. *e*. Tooth.

edges—the *rotulæ*. To the inner extremity of each rotula, finally, a slender arcuated rod, presenting indications of a division in the middle of its length, is articulated, and, running

(a) Mr. V. Thompson figures and describes five similar oral valves in the larval *Pentacrinus Europæus*.

outwards parallel with the rotula, terminates in a free bifurcated extremity. This is the *radius* or "compass" of Valentin.

Altogether, then, the Lantern consists of twenty principal pieces—five teeth, five alveoli, five rotulæ or falces, and five radii or compasses; of which the alveoli are again divisible into four pieces each and the radii into two, making a total of forty pieces. In their normal position, it must be remembered that the alveoli and teeth are inter-ambulacral, while the radii and rotulæ are ambulacral. Besides the inter-alveolar muscles already described, this complex apparatus has protractor muscles arising from the inter-ambulacral region of the oral edge of the corona, and inserted into the upper part of the alveoli; slender oblique muscles, with a similar origin, but inserted into the radii; transverse muscles connecting the radii together; and retractor muscles arising from the arches of the auriculæ, and inserted into the oral ends of the alveoli.

A similar, but less complex, oral skeleton exists in most *Clypeastroida* (Fig. 5 A), but nothing of the kind has yet been discovered in the *Spatangoida*.

In the *Holothuridea* a mere rudiment of the oral skeleton, no longer subserving masticatory purposes, remains as a ring of ten or fifteen calcareous plates surrounding the œsophagus; and in the *Ophiuridea* a still more rudimentary condition of this part of the skeleton has been discovered by Müller, in the shape of delicate calcareous plates which lie upon the circular ambulacral vessel.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASES OF EPILEPSY, GIDDINESS, &c.

PART OF A SERIES ILLUSTRATING

AFFECTIONS OF THE NERVOUS SYSTEM, OF ORGANIC AND INORGANIC ORIGIN.

WITH CLINICAL AND PATHOLOGICAL OBSERVATIONS.

By J. W. OGLE, M.D.

Pathological Curator at St. George's Hospital, and Physician to the St. George's and St. James's Dispensary.

(Continued from page 211.)

Case 10.—E. C., aged 35, a needlewoman, came to the Dispensary, September 9, 1854, complaining of intense and almost constant pain across the forehead, with a feeling of numbness in the right arm and fingers of the right hand. She had also pain about the shoulder blades. She appeared a naturally healthy woman, and said that, excepting her present indisposition, which had existed for some weeks, she had never had much to complain of. There was no distortion about the face, no strabismus, etc., but the sight was said to be very dim. The special senses appeared otherwise to be unaffected. There was slight cough, but no expectoration. There was much thirst, and the appetite was very defective. The tongue was somewhat furred. The patient observed that she had been lately in the habit of passing the small, thread-like ascarides by the rectum, and that their passage was generally preceded by abdominal pain.

I ordered the patient a large dose of calomel, the Pharmacopœia compound scammony powder, and a scruple of the bicarbonate of potash with tincture of hyoscyamus, in a bitter infusion, three times a-day. On the 12th she said she had passed a large number of the worms, and that the bowels had been violently purged, which made her feel very weak. The pains were alleviated, especially in the shoulders.

On the 14th, having continued her medicine, to which the spirits of nitrous ether had been added, she said she was decidedly better. The headache was much diminished but not gone, and the numbness lessened. The appetite was better. She said she was passing only a slight amount of urine; so she had a mixture with liquor of potash, spirit of juniper, nitrous ether, and tincture of hyoscyamus.

On the 16th she had voided more urine, and expressed herself as decidedly better in every way. No more worms had been passed. She then took the acid quinine mixture, and regulated the bowels with compound aloes pill. Under this she gradually recovered, and was discharged only complaining of occasional dimness of sight.

Remarks.—I believe that in this case the efficient cause of the headache, the numbness and the pain in the shoulders, was the presence of the ascarides. The expulsion of these animals by very brisk purging, which was all that was necessary for the purpose, the regulation of the secretions, and the soothing of the intestinal mucous tract, appeared to be all that was required. Probably the quinine was useful, in addition to giving general tone and power, in diminishing the tendency to the future formation of the animals. Its bitter properties, and those also of the infusion given, would also, doubtless, help in eradicating them. I may mention here, that, guided by the fact of the hostility between all bitters and the lower forms of animal life, I have often ordered enemata of the ordinary quinine mixture with advantage in the expulsion of intestinal animals.

Case 11.—M. D., aged 50, a native of Bordeaux, married, healthy, and well made, rather thin, with grey hair, and rather bald head, was one of a family of twelve, nearly all of whom died young. His twin brother died six years ago of apoplexy. His parents both lived to an old age. He was a courier by vocation, and had lived an active life, and been very abstemious, but had acquired the habit of "bolting" his food quickly. He was excitable and quick in all his movements. For one or two days previously, he had complained of sudden and intense headache, with giddiness, to which he had never been accustomed; and on the evening of November 9, 1855, he was heard by a fellow-servant to be making a "peculiar shrill, moaning noise." On entering his room, he was caught in the act of falling down, with loud stertorous breathing, and both eyes widely staring open and fixed. In a few minutes he vomited a huge quantity of undigested food, containing large masses of roasted pork, of which he had eaten freely at midday; and after that became very much convulsed, making, as was described, most hideous faces. In about half-an-hour afterwards, Mr. Bowles, a pupil of St. George's Hospital, to whom I am indebted for the history of the case, saw him, and found him lying on the floor, tossing his head from side to side, and constantly repeating the same words. He did not recognize his wife or any bystanders, but could be so far roused as to confess that he had great pain in the head. The pupils acted, though sluggishly, and the eyes had a wild stare. The pulse was very slow, very irregular, and intermitting, but not at all full or hard. He ordered him an aperient of calomel and jalap, and six leeches to be applied to the temples, with evaporating lotion to the head. When seen in about two hours more, he appeared a little more sensible, but was almost frantic with the intense pain in the head and down the back, and still kept throwing the head from side to side. The pulse was weaker, and still very irregular; and on having some cold water given to him he began to shiver, broke out into a cold perspiration, and almost fainted.

On the 10th the pain was still intense, and the bowels not opened, as the powder had been vomited the night before. Calomel was given, and a saline cathartic mixture every four hours. A blister was also applied to the neck.

On the 11th, the bowels had been well purged, but the headache was still bad. The pulse was 100, and still irregular. A saline mixture was given, containing a few drops of the tincture of digitalis, and more leeches applied to the temples. During the night the patient had several slight attacks of convulsions, and he was thought to be about to have another attack.

On the 12th, the pulse was still 100, but softer. The tongue was furred and dryish. The medicine was continued, and ice applied to the head.

On the 13th he was very much better, and the ice seemed to have given the greatest relief. The pulse was softer, and now quite regular. He felt and looked more cheerful and natural. He was allowed thin broth and arrowroot diet.

On the 14th he was more exhausted, having got up to have his bed made and to shave himself. The skin was rather dry, but the pulse was soft and regular. The bowels not having been open, the cathartic mixture was again resorted to.

On the 15th he was better. The pulse was 70, and quite regular. Still there was a slight, though constant pain over the forehead, which was cool. The tongue was moister and less furred.

The saline medicine was continued, and one or two more doses of the cathartic mixture given; and on the following day a saline effervescing medicine, with aromatic spirit of ammonia, was given.

On the 18th he became feverish and oppressed, and was affected by intense pain along the course of the sciatic nerve, the urine being loaded with lithates, owing to having caught cold, as it was thought. Under the use of antimony and colchicum wine, with purgatives and warm baths, he recovered completely from the pains. The further use of tonics rendered him quite convalescent.

Remarks.—The chief points of interest in the above case are :—1. The attack being caused by overloading of the stomach with indigestible food. No doubt the patient had been for some little time suffering from indigestion, but the climax seems to have been attained by the pork meal. 2. The remarkable quickness, irregularity, and intermittence of the heart's action ; the more interesting physiologically as a symptom, inasmuch as it rather suddenly ceased, the pulse becoming regular, quieter, and fuller when exciting intestinal irritation abated. As regards the peculiar interference with the heart's action, this case may be compared with Case 7 of this series, vide page 210. Perhaps an emetic and rather more frequent purging might have dissipated this as well as the headache, the febrile condition, and other symptoms sooner.

Case 12.—M. R., a girl, aged 5, was brought into St. George's Hospital, January 11, 1855, with a very extensive and deep burn on the right upper extremity, and a slight burn also on the left one, and on the neck and lower part of the face. The patient was in good general health, well formed and nourished. She went on well for several days under the application of cotton wool and the ordinary calamine cerate, and was removed by her friends from the hospital. Not improving satisfactorily at home, she was brought to the Hospital a second time. After her return she did well for about fourteen days, when the bowels became very costive and painful. The little finger on the burnt hand afterwards sloughed, and was obliged to be removed. Her health improved until February 17, when she was suddenly seized with severe general convulsions, which were followed by dilatation and insensibility of both pupils. The convulsions abated, but still "*spasm of the muscles of mastication*" continued at intervals. During almost the whole of the night convulsions continued, the tongue being much and severely bitten, and much blood being lost in consequence. Turpentine injections, and a blister to the nape of the neck, with ice to the head, were resorted to, and small repeated doses of hydrargyrum c. creta given. She never recovered perfect consciousness, but continued through the following day in very much the same condition, the fits recurring at longer or shorter intervals. She died on the morning of the 19th.

On *post-mortem examination*, the substance of the brain was found to present many bloody puncta on section, and the blood-vessels of the dura mater and arachnoid were very full of blood. The ventricles of the brain and subarachnoid tissues contained more fluid than ordinary. Besides the above, nothing noteworthy was observable in the cranium or in any other part of the body. No intestinal ulceration was found.

Remarks.—In this case, as the child was in previous good health, and well nourished, no history of former fits existing, and no lesion of any organ found at the *post mortem*, we must refer the convulsive attack either to exhaustion, or to the irritation of the burnt and injured integument. The probabilities are, that the latter is the just supposition, and this case may be likened to certain other cases in which convulsions arise from the application of blisters to the skin, for if exhaustion from excessive pain or from excessive discharge had caused the attack, we should not have had it coming on so suddenly, or without general symptoms of debility, etc. The history shows that all symptoms, the pulse, etc., were favourable up to the attack. It is possible that, considering her age, the patient may have had some dental disturbance taking place at the time, and that the irritation of the burns became efficient in producing a result, which without some general and constitutional irritability would not have arisen. No doubt death was immediately caused by congestion of the brain, the increased serous effusion, the bloody puncta, fulness of the veins being the relics of the congestion, and testifying to it. The symptoms are interesting, among other things, as showing spasm confined at one time to the muscles about the face, so far simulating "*traumatic trismus.*"

Case 13.—A man, of about 20 years of age, was brought into St. George's Hospital, out of the crowd collected in Hyde-park-corner, May 1, 1851, the day of the opening of the Great Exhibition. He was affected by spasm, assuming the form of what he termed violent cramps of both legs and arms. The hands were strongly clenched, and the arms half-flexed on the forearm, the muscles being all quite rigid. He was perfectly sensible. The jugular and other veins about the neck were greatly swollen, and the conjunctivæ were very injected. The heart was beating violently but with regularity, and no murmur could be heard. The pulse was quick, but weak. The skin was hot and covered by perspiration. There was no distortion of the face and no strabismus, etc., but great twitching of both eyelids on either side existed. The patient recovered so as to leave the hospital in about an hour. He said that on any unnatural excitement he had had the cramps at times for many years, and that during the intervals he was always quite well. He was always forewarned of their approach by pains in the arms. Of late they had been more severe, and he was unable in any way to account for them, neither can I. As he never appeared again at the Hospital, I have no further notes of this case.

Case 14.—I would allude here to the further observation of a case of paroxysmal epilepsy, which I described at length, though not in this present series of cases, at page 619 of Vol. V. of this journal. Since that time the gentleman has had one or two more severe attacks, but they have invariably followed some acts of excess in diet, as in the case of his former attacks. He had one very severe attack about the beginning of 1854, and in February, 1855, had another. For about four weeks previously to the last date he had been complaining much of pain in the shoulders, been rather feverish, had a loaded tongue, and passed much pink deposit in the urine. On the 8th he had been dining very freely at the Paddington Hotel, and had champagne, etc., and on leaving the hotel found the air very chilly. About 5 a.m. on the following morning, whilst in bed, he was heard by his friends to be making a noise and struggling, and found to be partially insensible, but his symptoms were not nearly so severe as on previous occasions. There was no bitten tongue, no screaming, no extreme lividity, and no foaming, and the convulsions were much greater in the lower part of the body than the upper. The urine, but not the motions, was expelled during the attack, which had never been the case with him in previous attacks. There was no stertor, but the breathing was loud and deep. On recovery, the patient knew that something had taken place, and on the following morning, when he awoke, had the usual headache which he has after the affection. I then saw him, and found him very heavy and drowsy. The pupils were natural ; the tongue was furred, and very red indeed at the edges ; the papillæ were unusually large and red, as if the tongue had been scraped. The pulse was weak ; there was intense pain across the loins, specially on movement, the patient walking about with two sticks, as if he had lumbago. No pain in the groin or thighs existed. Under the influence of a calomel and senna purgative, and the infusion of gentian with solution of potash, he quickly recovered his ordinary condition, on the next day having much less pain, and looking much better and brighter. The patient has had no very severe attack since the one detailed above, and has constantly found, that by great regularity of meals, dining in the middle of the day, etc., which he now always does, he is in much better health.

Remarks.—The above attack is interesting as showing convulsive action, chiefly of the lower parts of the body, the bladder being freely acted on, as is sometimes the case in epileptic attacks, and the urine violently discharged. The violence of the action in the lumbar muscles was indicated by the severe pains and stiffness following, but, as a whole, the seizure was less severe than preceding ones. Independent of the actual symptoms, this was proved by the more complete recognition of his condition by the patient on returning to himself. I have before me notes of a somewhat similar case, in which the patient never screams or bites the tongue, but groans always in the attack, which, as in the above case, invariably is caused by indigestion, the patient volunteering the information that a beefsteak will always cause it. He always vomits before he comes round, and says that he finds his health better if he confines himself to the eating of mutton at dinner.

13, Upper Brook-street, Grosvenor-square.

(To be continued.)

RUPTURE OF THE BLADDER.

By A. G. FIELD, F.R.C.S.

I am induced to offer the following case for publication in the *Medical Times and Gazette*, on account of the extreme rarity of the occurrence of rupture of this viscus from over distension, without the application of violence. Rokitansky speaks of it as a very rare occurrence: and Sir B. Brodie mentions one such case in St. George's Hospital, and refers to but one other seen by Sir Everard Home.

E. P., aged 72, had for many years been the subject of enlarged prostate, with its usual accompanying ills. On the 30th of September I was requested to visit him, as he was suffering from retention of urine. I found the bladder much distended, and the urine dribbling away, what passed being highly offensive and thick, from admixture with mucus. There was considerable fever; tongue thickly coated, great pain and prostration. Stimulants and opiate enemata were given, and the bladder was frequently emptied by means of the catheter, under which treatment he rapidly improved.

October 2.—He got possession of the catheter in my absence, and introduced it himself with tolerable ease; so that he continued the practice for two days; but on one occasion, having slept for a considerable time, when he awoke he found the bladder had become distended to a painful degree. This rendered him awkward in his hurried attempts to get speedy relief with the instrument, and he caused himself such excessive pain, by trying to force the catheter quickly into the bladder, that he positively refused to allow me to repeat the attempt on my visit in the evening. The serious consequences of his refusing submission to this necessary means of relief were plainly set before him, but he obstinately persisted, saying he would rather die than again endure such suffering as he knew would arise from the introduction of the catheter. He begged for laudanum, to ease him out of the world. This was denied him, in the hope that, if he continued to suffer pain, he might submit to the advice which was given him.

8th.—He was much depressed, pulse failing, countenance pale and shrunken, great pain and tenderness over the lower part of the abdomen, no tumour, as of distended bladder, nor marked dulness on percussion over the hypogastric region. I now at length persuaded him to submit to the introduction of the catheter under chloroform. A very small quantity of the anæsthetic sufficed to produce insensibility. When the instrument reached the prostate, it diverged to the right; on being slightly withdrawn, it was passed easily into the bladder, but not a drop of water escaped. This was repeated at three different times, and an attempt was made to draw out some through the catheter by means of a syringe, on the supposition that mucus might obstruct the eye of the catheter; and other means were resorted to, for the purpose of clearing the tube of any possible obstruction, but without any useful result. He died on the 10th of October, retaining consciousness to the last, and suffering considerable amount of pain till within an hour or two of his death. My friend, Mr. Bacon Phillips, kindly assisted me in making a post-mortem examination.

On opening the peritonæum, a large quantity of turbid brown fluid escaped, containing flakes of fibrin; there were, also, other evidences of peritonitis. The ureters were dilated, and the kidneys healthy. The bladder was removed for more careful examination. The prostate was enlarged to three or four times its usual size; and on opening the urethra, a false passage was seen running half-an-inch into the substance of the left lobe. The mucous coat of the bladder was generally highly vascular, presenting, besides, several deep red patches. The muscular coat was hypertrophied, and presented bold fasciculi on its inner surface. Near the middle of the superior fundus was an opening, through which a large sound passed easily into the cavity of the abdomen; the edges of this opening were smooth and rounded, as if a portion of the mucous membrane had been sacculated, and had afterwards given way; the peritoneal covering yielding at the same time, had allowed the urine to escape into the peritoneal cavity. There was no extravasation into the subserous cellular tissue, nor anywhere external to the peritonæum.

28, Old Steine, Brighton, Nov. 24, 1856.

CASE OF DOUBLE CONCEPTION:

ONE CHILD BORN ALIVE, THE OTHER EXTRA-UTERINE FŒTATION.

By J. CLARKE, Esq., M.R.C.S.

Ann Jones, the wife of a small farmer, aged 40; rather short. Health generally good. Has had two children, one three years ago, the other the latter end of June, 1855; both still-born at their full period, and difficult labours. I was called to her on Tuesday evening, September 23, 1856, in her third pregnancy. Found her in labour, the liquor amnii having escaped three hours previous to my arrival. Natural presentation of the head, with every indication of a speedy termination, which took place about 9 o'clock p.m. After the birth of the child, I placed my hand over the abdominal and uterine regions, and felt a hard and solid substance above the uterus, which, on careful examination, I ascertained to be the cranial bones of another fœtus, in which I could distinctly trace the sutures; and on moving it, at the same time applying firm pressure, felt also what appeared to me the facial prominences and depressions. It certainly at first rather puzzled me, having never met with or heard of such a case. However, as the placenta could not be easily detached, I was determined to wait and see the effects of nature. After some hours, there being no hæmorrhage or pain (indeed, she fell into a sound sleep), the placenta still remaining, I introduced my hand into the uterus, detached the placenta which was adherent to the fundus, and brought it away. The uterus being now free, my next step was directed to find where the second fœtus lay; it was still felt in the same situation, and appeared to be very close to the abdominal parietes; I then examined the uterus more particularly, and distinctly felt through its walls its limbs, which appeared to me to lie in the left ovary or Fallopian tube. I communicated with the family, and informed them (the nurse only being previously aware), that there was another child, which was dead, but was not contained in the womb; and, as it was a case of very rare and unusual occurrence, I particularly requested a consultation with some other Medical Practitioner, which they readily acceded to; and my friend Mr. Torr, Surgeon, of Barnstaple, was sent for, and arrived at my house the same afternoon, (Wednesday, the 24th,) when we both visited her, and found her quite easy and comfortable; but the fœtus could not be so easily felt. Mr. Torr made an internal examination of the uterus, and first considered it to be an ovarian tumour; but, on changing the position of the woman, and lifting it internally with one hand, the osseous part with its sutures became more distinct and certain; and he agreed with me it was a case of extra-uterine or tubal fœtation. It now being upwards of nine weeks since her confinement, and having suffered but little inconvenience occasionally from its extra weight, and in every respect progressing most favourably, there are strong hopes it may become an innocuous mass, and no untoward symptoms occur. Her mother, aged 63, still living and enjoying good health, informs me she has had nine children,—six sons and three daughters,—with all of whom she had easy labours; her three daughters have all had difficult (*i.e.*, instrumental) labours, and there is a very great prominency of the sacrum in all.

This case, I doubt not, will be as interesting to the Profession generally as it is to myself; and a query arises, May not such cases have occurred before, though not noticed? Had I not made an external examination of the abdomen, but introduced my hand and removed the placenta, I certainly should not have been aware of the presence of another fœtus; or had the delivery been natural as it was, and been delivered by a woman, instead of a Medical Practitioner, the placenta being discharged spontaneously, then the case would not have been known; for she herself was perfectly ignorant of anything unusual or uncommon; nor did I deem it right to make her acquainted with the true nature of the case for a week or two after.

As I could find no account in any Medical or obstetric writings of a similar case, I communicated with Dr. Ramsbotham, who very kindly returned me an answer, stating that he had adverted to and given such a case in the edition of his work published this year, which I have not had an opportunity of seeing.

Lynton, North Devon, December 1, 1856.

ON THE PREVENTION OF "PITTING" IN SMALL-POX, BY A STRONG SOLUTION OF NITRATE OF SILVER.

By ALEXANDER ROWARD, M.D.E.
Visiting Physician to the Marine and Emigrant Hospital, Quebec.

JOHN HENRY SMITH, lumberman, aged 20, well proportioned and athletic, was admitted under my care, at the Marine and Emigrant Hospital, Quebec, on the 23rd of April, 1856. Three days after admission an eruption of small-pox made its appearance, which soon became confluent. Three days after the eruption presented itself I applied a solution of nitrate of silver all over the face, of the strength of one drachm of the salt to an ounce of water, which was much stronger than I had heard of having ever been employed before. This was done with the view of preventing "pitting," which appeared inevitable from the severity of the disease, and its tendency to confluence. For in addition to high fever and constitutional excitement, the cutaneous inflammation ran a severe course, in some parts assuming an erysipelatous character, terminating in subcutaneous abscesses.

The patient experienced a grateful sense of cooling from the application, which also relieved the distressing itching and tension from which he suffered; and he begged earnestly to have the wash again applied. The practice was pursued daily till the 13th of May, when it was discontinued. The blackened cuticle now began to peel off, leaving the face perfectly free from pitting while the hands, in which the disease had been purposely allowed to follow its course, were deeply and numerously scarred.

Other striking beneficial effects were observed to follow the use of this strong solution besides the prevention of pitting. The inflammation about the face and head became diminished, and the itching and heat were lessened, while the application caused no pain, gave rise to no disagreeable odour, and was not followed by any secondary fever. The patient recovered completely from the disease, and is now a servant in the Hospital.

In addition to the above advantage, I believe an important step is attained towards the patient's safety by so materially diminishing the intense inflammatory action about the head and in such close proximity to the brain; and I am so, strongly impressed with its utility in this respect, that I shall apply it not only to the face, but all over the scalp, in all future cases.

Having every reason to be gratified with the result of treatment in the foregoing case, I mentioned the circumstance to my friend Captain Reeve, the Commandant at Grosse Isle Quarantine Station, and strongly urged him to recommend a trial of the same plan in the Quarantine Hospital when an opportunity should occur. He did so, and it was accordingly tested in four cases during the following months of June and July, with the most satisfactory results.

These cases have been reported in the October number of the *Montreal Medical Chronicle*, by Dr. Von Iffland, Assistant-Physician at Grosse Isle; and I have received letters from that gentleman and from Captain Reeve and Dr. G. Douglas, the Medical Superintendent of the Station, acknowledging that it was from me they obtained the first idea as to the utility of a strong solution of nitrate of silver, in the cctrotic treatment of small-pox.

I am well aware that weak solutions of the same salt have been recommended, but from their weakness they proved irritating and inefficient, and have consequently been abandoned. The solid stick of caustic has been applied to each punctured vesicle; but this process was found to be painful and tedious, and in confluent cases almost impracticable. None of these objections apply to the strong solution of one drachm to the ounce of water. Its application is free from pain, it has been proved to be highly efficacious, and its employment can be entrusted to a common nurse or attendant on the patient.

Moreover, I would recommend its application to the mouth and fauces. I do not, however, recommend its application to the cornea when attacked with the small-pox pustule, as that organ demands special and separate treatment from the Surgeon.

I have ventured to publish the above case from a firm belief in the superior advantages of the remedy in preventing pitting, and likewise as an antiphlogistic agent of great potency; for I am fully convinced, that its more general use will not only prevent much disfigurement, but tend materially to lessen the danger to the life of the patient; and I trust I shall also be pardoned for claiming to be considered the originator of the plan, a step which has, however, been rendered unnecessary by the frank admission of my friend, Dr. Von Iffland.

Of course, my readers are not to suppose, that in the foregoing case, or in those reported by Dr. Von Iffland, that constitutional treatment was neglected.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

PORTION OF SEALING-WAX DETAINED FOUR YEARS IN THE BLADDER.—LITHOTOMY.

(Under the care of Mr. M'WHINNIE.)

About a month ago, a pale, cachectic-looking man, was admitted into Colston Ward, on account of urinary symptoms, and with the statement that they dated as far back as four years, and had followed the unintentional introduction of a portion of sealing-wax into the bladder. His age was 26, and he was by trade a maker of toys He stated that, four years ago, on account of some irritation in the urethra, he had passed down the meatus a part of a stick of sealing-wax, nearly as thick, and about as long as the little finger. As soon as fairly within the canal it had slipped out of his fingers, and, to use his own expression, had been "sucked down into the bladder." Within a few days blood appeared several times in the water, but his sufferings were not so severe as to oblige him to seek immediate surgical relief. From that time to the present he had been troubled with mild symptoms of stone, and had often passed blood. With regard to any attempts at spontaneous escape on the part of the fragment, he stated that on several occasions, from the entire stoppage of the flow of urine, he had believed that it had got into the urethra, but that he had never been able to force it forwards. He had never since the accident been sounded.

Mr. M'Whinnie immediately employed the sound, and with the greatest ease detected what felt like a large, light, calculus. The bladder was distensible, and there were no evidences of stricture, or other disease, in the urethra. The man's health being worn down by suffering, it was deemed best at once to relieve him by lithotomy. The propriety of performing lithotrity was mooted and considered, but was decided against partly on account of the man's ill-health, and partly because it was thought probable that the softened sealing-wax, if seized, might clog the instrument, and be difficult of removal.

The operation of lithotomy was performed in the usual way a few days after the man's admission, and without any difficulty a body, of the size and shape of which the appended

sketch will give a good idea, was removed. It consisted of a stick of sealing-wax, conical at each end, doubled on itself, and thinly coated in all parts by phosphatic deposit. There was very little bleeding at the time of the operation, but it commenced after the man's removal to bed, and it was necessary to plug the wound, and also twice to empty the bladder, which had filled with coagula. The quantity of blood lost was not altogether very much, but in the man's weak condition it sufficed to reduce him beyond recovery. He sank, and died on the seventh day. At the post-mortem the incision of the urethra, prostate, etc., was found to be small, and to have been exactly as had been intended. The wound showed no signs of healthy action. There was no material disease of the bladder or kidneys, or of any of the internal viscera. The source of the hæmorrhage was not to be ascertained; but from the circumstance, that

after plugging the wound the blood had flowed backwards into the bladder, it seemed probable that it had been from the vessels about the edge of the prostate.

One of the main features of interest in the above case respects its relation to a series of five or six others which we gave a few months ago, in which also foreign bodies had been removed from the bladder (a). The conclusion which some of these cases seemed to warrant was, that the Surgeon ought, when slender bodies (portions of bougie, and the like) have got into the bladder, to pursue measures—dilating the urethra, injecting the bladder, etc.—having for their end the procuring of their escape per urethram. At first sight the inference from the above might seem to be against the probability of such escape, since four years had elapsed without its occurring. The foreign body was, however, in this instance, of a peculiar kind. Being softened by the heat of the urine, it had, doubtless, at an early period, been doubled up upon itself by the contraction of the bladder, and thus made to assume a form which entirely prevented its being received into the urethra. To cases in which the material is hard, as gutta-percha or metal, the case has no similarity. It will be recollected that in the series alluded to portions of gutta-percha bougie had, on several occasions, escaped spontaneously, and that we referred to other cases in which with portions of silver catheters the like event had followed. Another point of practical importance is as to whether lithotrity should have been preferred to lithotomy. And here, of course, all *post factum* reasoning must be avoided, as the result of the case was, to a large extent, accidental. Looking at the circumstance that the body in the bladder consisted of a material which, at the heat of the urine, would be softish and lose all brittleness, we think most Surgeons will coincide in Mr. M'Whinnie's opinion, that it would have been unwise to have seized it in a lithotrite. The probability of so breaking it up that it should be got away would have been very small indeed; and, on the other hand, it was quite possible that it might have clogged the instrument so as to have rendered its removal a matter of difficulty.

VESICO-VAGINAL FISTULA—OPERATION—PERFECT CURE.

(Under the care of Mr. PAGET.)

The subjoined is the narrative of the case to which we referred at page 263, September 13, 1856. We are indebted for it to Dr. Harris, the Resident Clinical Assistant to St. Bartholomew's, and must here mention also that Mr. Paget attributes no small share in the success of the case to the judicious and zealous attention that gentleman gave to its after-management. The case is the third example of complete cure of vesico-vaginal fistulæ by operation which we have had to record during the last few months. See *Medical Times and Gazette* for September 13, and November 15, 1856, pages 263 and 491.

Alice Smith, aged 35, admitted June 28, 1856, in good health. Complained only of the constant running away of her urine.

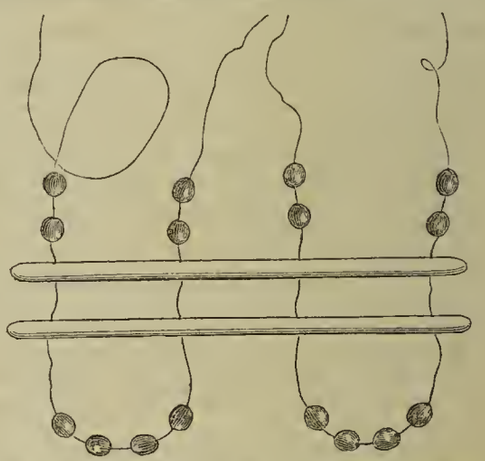
History.—Had been married seven years. Had been twice pregnant. First labour, three years and a half ago; severe and lingering; recovered slowly. Had difficulty in retaining her urine for any time afterwards. Second labour, two years ago:—Severe; convalescence protracted. Has suffered from entire incontinence of urine since.

Examination.—In the anterior vaginal wall, about an inch and a-half from the orifice, was an opening of an oval shape, (its long diameter extending transversely across the vaginal wall), sufficiently large to admit the tip of the forefinger. Its edges were hard and tense, and the tissues in its immediate neighbourhood somewhat puckered. A catheter passed by the urethra could be felt through the opening.

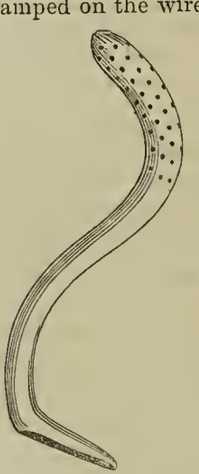
The operation was performed on July 22, at 2 p.m. The wires and apparatus were placed in at 8 p.m. the same evening.

Operation.—The patient was supported, with her nates raised, as if on her hands and knees, and the cavity of the vagina exposed with the help of Dr. Sims' retractor. A curved cut was made through the mucous membrane of the vagina, about one-third of an inch behind the posterior border of the opening into the bladder, and extending quite across the anterior wall. The mucous membrane of the vagina behind this cut was raised from the posterior and inferior wall of the bladder, so as to form a flap from one-third to one-half an inch deep, and from one to two lines thick. The ends of this cut were then connected by another carried through the mucous membrane, and across the front wall of the vagina, about one-third of an inch in front of the opening into the bladder; and a similar but more narrow flap was raised by dissecting the mucous membrane forwards. The portion of mucous membrane circumscribed by these two cuts, including the borders of the abnormal opening and the portion of the mucous membrane of the bladder everted through it, was then dissected away from the wall of the bladder and removed. The opening into the bladder was thus enlarged to about two-thirds and a-half of an inch in its diameter; it was bordered (as seen from the vagina) by the muscular coat of the bladder, exposed for about one-third to half an inch; and this was surrounded by the reflected flaps of the mucous membrane of the vagina.

It was now necessary to wash out the bladder filled with clots of blood; and the patient being deeply affected by the chloroform and her constrained posture, the rest of the proceedings were deferred for four hours.



The apparatus for union was that recommended by Dr. Marion Sims, with only the addition of a small piece of cork placed between the shots and the bars on which they severally rested. Each wire was drawn, with silk, from behind forwards, through the mucous membrane of the vagina; traversing it through points about half an inch distant from the borders of the flaps above described, and through the angles of connexion between those flaps and the muscular coat of the bladder. When the bars were fixed down, with the shots clamped on the wires, the flaps were brought into exact contact, and formed an upraised ridge which extended quite across the front wall of the vagina. The edges of the flaps, along the top of the ridge, were united with two ordinary silk sutures.



Self-Retaining Catheter.

The advantage of this catheter is, that when once introduced, it keeps in by its own peculiar shape. A piece of india-rubber tubing is placed over its end, and the urine thus conveyed under the bed into the receptacle.

A catheter, adapted by Dr. Harris, on Dr. Sims' plan, was placed in the bladder.

July 23.—Patient had passed a good night. Catheter did not irritate. Was directed to lie on her side. Continued to do well. No urine escaped the wound. Catheter withdrawn, and cleansed every morning.

28th.—Middle wire was cut, and the anterior cork and shot withdrawn, as the pressure of it had caused a slight slough of the mucous membrane.

31st.—The other wire was cut, and whole apparatus withdrawn. Catheter to be passed every four hours.

August 2.—Passed urine spontaneously. On examining the wound, represented by a true line, the edges have been brought into complete apposition, and the union is perfect.

The woman remained under observation for some weeks, and was repeatedly examined. Her cure was perfect in every respect, and no incontinence of urine by the urethra remained, as is sometimes the case after successful operations of this class.

See "Medical Times and Gazette" for August 30, 1856, pages 212,

ST. BARTHOLOMEW'S, KING'S COLLEGE, AND UNIVERSITY COLLEGE HOSPITALS.

RESECTION OF THE ELBOW-JOINT BY A SINGLE LONG INCISION.

(Cases under the care of Mr. PAGET, Mr. FERGUSSON, and Mr. ERICHSEN.)

THE adoption of the single incision in resections of the elbow-joint, which has been done almost simultaneously by three of our London Surgeons, appears to be an important simplification of the former methods. It has been repeatedly shown on the dead subject since 1853 by Mr. Spencer Wells. The old plan, and that yet used by many Surgeons, was by incisions in the form of the letter H; then it was found the long cut on the radial border of the joint might be dispensed with, and that a ⊢ shaped one gave ample room. The last improvement, and one for which we are indebted to Langenbeck, is the omission of the cross cut also. The last-named Surgeon has, for many years been accustomed to operate by means of a single long incision on the inner edge of the ulna, and asserts that the lateral separation of the soft parts thus afforded gives ample space for the operation, while, as must be apparent, it leaves the bones much better covered, and the wound a much smaller one than would otherwise be the case. A House-Surgeon of M. Langenbeck's being in London visited most of the Hospitals, and mentioned to the Surgeons his preceptor's practice; hence its adoption early last October by three Surgeons within a week or two of each other. Mr. Paget was, we believe, the first. His case was that of a young man whose left elbow was the seat of old disease. There were large scars of former incisions, numerous sinuses, from which the discharge was profuse, and very great thickening of the soft parts. The ligaments and other structures around the joint were all in a pulpy condition, and no division of them with the knife was required. The ends of the diseased bones were readily turned into the wound, and sawn away with a key-hole saw, cutting from before backwards. The incision was necessarily a long one, and from the infiltration of the soft parts, much gaping of the wound occurred, but not nearly so much as there would have been had the transverse incision been practised. The case is doing well, the swelling is subsiding, and the healing process slowly progressing. Mr. Fergusson's patient was a girl, aged 11, the operation being done on October 4. The disease was of eight months' standing; there were several open sinuses, and much surrounding thickening of parts. The healing was rapid, and is now nearly complete; fair motion having been obtained. Mr. Erichsen's patient was an old man of 63, whose left elbow had for six years been the seat of disease. Some pieces of necrosed bone had been removed; but the disease persisting, it was determined to resect. The operation was done on October 16, and, in spite of two attacks of erysipelas, the healing has gone on most rapidly. At present, excepting one very small sinus, it is complete. The man is able to go about, and is much improving in health. The elbow has fair motion, and all thickening of parts has subsided. We may add, that in these cases the operators all express themselves as highly pleased with the new mode of operating, and quite intend to employ it in future cases. There can be little doubt but that in the latter two cases, the last especially, the healing process has been very much more speedy than it would have been had a transverse incision also been made.

It may, perhaps, be questioned whether there is not a class of cases in which a more free exposure of the back of the joint than the single longitudinal incision would permit of would be desirable. Granting that it is a great improvement in those in which the ligaments have been softened and easily give way, and that it may also be easily performed on the dead subject, it may yet be open to doubt whether the operation would not be expedited by a cross-incision in those cases in which, from recent and acute inflammation there is great swelling, the ligaments yet remaining sound, and requiring division with the scalpel. The writer in a case of this kind once experienced some hindrance even with the ⊢ incision, from the great thickness of the parts cut, and the difficulty of sufficiently reflecting the œdematous angles of skin, which were fully an inch and a-half in depth. For cases of this kind the old H incision will probably remain preferable to either of the other modes. They are, however, quite unusual.

HOSPITAL NOTES.

MALIGNANT TUMOURS OF PECULIAR APPEARANCES. — A patient, now under the care of Mr. Curling, in the London Hospital, presents an unusual form of rapidly growing tumour. She is a woman (Margaret Baker), aged 36, miserably thin and cachectic. She was confined five months ago, and states, that three months before that she had noticed two small subcutaneous tumours, one over the left shin, and the other in the upper part of the inside of the left thigh. At present the lower one is the size of a large fist, and the upper one of an infant's head. The lower one is now ulcerated, and where the skin is destroyed a sloughing structure, looking much like moist washleather, is exposed. The edges of the skin have not assumed any of the conditions generally seen in cancer, though there can be little doubt of the nature of the disease. Both masses are getting fixed, and have very large diffused bases. The upper one encroaches too much on Poupart's ligament to allow of either amputation or excision being performed, nor is the woman's health in a state to bear an operation. The case affords another illustration of the almost numberless shades of difference which cancerous growths exhibit one from another, and is well worth the inspection of any who may visit the Hospital.

EXTRACTION VERSUS DEPRESSION.—An opportunity for contrasting the results of extraction and depression operations for cataract was afforded by a patient at the Moorfields Opthalmic, under Mr. Critchett's care, a few weeks ago. A woman, of about 45, had had depression performed in the left eye by another Surgeon two years ago, and had subsequently had her right lens extracted by Mr. Critchett. Both operations had been perfect in their kind, but the right had become so much the more useful eye, and so great was the annoyance to sight caused by the depressed lens in the left, that she was anxious to have extraction performed in it also. The lens, which was very opaque, lay quite below the pupil, and the latter was clear; but, from the movements of the former, much interference with vision resulted. No irritation had apparently been caused, and the visual powers of the eye were as good as ever. At the woman's own request, Mr. Critchett performed extraction, and hooked up the lens and removed it, the operation not being attended with any difficulty. It was interesting to observe that the lens, although for two years freed from its capsule, and displaced into the vitreous humour, had undergone almost no diminution. It was chalky in parts, and in others of a hard gelatinous structure. Its non-absorption might be held to illustrate one of two things, either that a lens, in the condition described, is insusceptible of absorption, or that the vitreous humour does not possess any absorptive activity.

We may remark, that depression of cataract is an operation now very rarely indeed performed at Moorfields, partly from the conviction that, as shown in this instance, the sight so obtained is not so perfect as that after extraction; but more chiefly, because a belief is entertained that the eyes do not last, irritation being caused by the displaced lens communicated to the ciliary processes, and then to the retina, and ending in a few years in amaurosis.

COMPRESSION TREATMENT OF ANEURISM.—CURE UNDER UNUSUAL CIRCUMSTANCES.—A case has recently been treated by Mr. Lawrence in St. Bartholomew's Hospital in which a popliteal aneurism solidified under unusual circumstances. The patient was a robust young man of 27, and the tumour about the size of half an orange. The compression was commenced with a common Signorini's tourniquet, and was cautiously pursued, the stream of blood through the tumour being retarded merely, and not nearly arrested. This had been done for about seventy-six hours, and the man having suffered no inconvenience, the tourniquet was screwed tighter. On Mr. Lawrence's visit, the day following, the man complained of pain in the tumour; and fearing inflammation of the sac, Mr. Lawrence ordered the immediate disuse of all compression. The pulsation, although not so powerful as at first, was still very distinct. Within a few days of the laying aside of the compression, however, all pulsation ceased; the tumour afterwards rapidly absorbed, and a perfect cure resulted. In attempting to explain the occurrence of consolidation under these circumstances, the conjecture seems not improbable that the impaction of a portion of fibrin in the distal trunk had been the cause of the pain in the tumour of

which the man complained; and that this in itself, not at first sufficient to occlude the vessel, had subsequently become coated with lymph, and finally acted as a plug.

Hydatid Tumours of the Liver.—There is at present in Guy's Hospital, under the care of Dr. Owen Rees, an interesting example of hydatid cyst in the liver discharging itself into the bowel. The patient has passed numerous portions of the "skins" of the smaller cysts by stool, and is doing very well. Two other cases, diagnosed as of similar nature, are under care as out-patients at the Metropolitan Free, but in neither of these has any evacuation yet taken place. Both are Irishmen, one aged 22, and the other 36. In the younger man, who is under the care of Dr. Richardson and Mr. Hutchinson, the cyst is of enormous size, and fills the upper two-thirds of the abdomen, bulging prominently forwards. Fluctuation is distinct. The man is able to go about his occupation, and no radical measure is at present contemplated. A few months ago the tumour was the seat of severe pain; and should this again occur (probably portending its rupture, and therefore a dangerous sign), its puncture is intended. The second case is under Dr. Ramskill, and in it the tumour extends across the epigastrium, filling it, projecting prominently, and lifting forward the ribs on each side. In it also fluctuation, as if within a very tense cyst, is perceptible (hydatic fremitus). It has not, while under observation (a month) increased in size. Within a few months the man vomited a round worm, an event of some interest in connexion with the opinion held by Siebold, and now generally admitted, that the echinococcus and the tape-worm are the same animal developed under different conditions.

Excision of the Head of the Femur.—Gouging of the Acetabulum, Etc.—On Saturday last, Mr. Hancock performed at Charing-cross Hospital an excision of the head of the femur. The case was one of old-standing disease of the hip-joint in a boy of about ten. An acute relapse had recently taken place, and there were evidences of an accumulation of matter in the iliac fossa. The boy's health failing, it was determined to remove the carious head of the bone, and at the same time to evacuate the matter by an opening through the acetabulum. This was done by means of an extensive crucial incision; the shaft of the femur, just below the trochanter, was then sawn through from without, the head and neck of the bone dissected away. With the gouge the acetabulum was next pretty freely opened, so as to allow the pus accumulated under the iliac muscle a ready means of escape by a depending channel. The limb was afterwards put up with a straight splint, the edges of the wound having been partially united by sutures. The boy had borne the operation well.

Ligature of a pulsating tumour in the subcutaneous tissue of the Thigh.—A case operated on five weeks ago by Mr. Lawrence in St. Bartholomew's afforded, in addition to other points of interest, an illustration of the retentive vitality possessed by some vascular growths. The patient, a very cachectic man, was brought into the theatre in order, as was intended, to have a pulsating tumour in the subcutaneous tissue of the inner side of the right thigh removed by the écraseur. It was about the size of a small apple, and adhered to the skin. It was easily emptied by pressure, but pulsated very vigorously, and refilled with a peculiar and remarkable whizzing sensation. Several who felt it, thought it much too vigorous in pulsation to allow of the safe use of the écraseur. Mr. Lawrence, on the contrary, deemed it a good case in which to test the efficiency of that instrument. In applying the preparatory ligature round its base, the skin, however, gave way, and such a profuse gush of blood followed as was with difficulty arrested by the tightening of the thread. Under these circumstances it was decided to be content with the ligature, and to allow the tumour to slough. The ligature, it should be said, had been drawn as tight as it could be, and included the undivided skin. All pulsation and bleeding was of course arrested. In the evening, the house surgeon, finding that the tumour again possessed a feeble pulsation, applied a second ligature as tightly as possible in the track of the first. A few days later, the strangulated portion still possessing vitality, (though no pulsation,) Mr Lawrence for a third time ligatured its base. On this occasion, the proceeding was effectual, and the tumour sloughed away. The wound has healed readily, and the disease appears quite eradicated. The difficulty in effecting complete strangulation in the first instance, might probably be referred to the circumstance that the skin had been included. In the ligature of nævi, it is well known to be generally necessary to cut through the skin in the track of the thread in order to enable it to be drawn with sufficient tightness to secure sloughing.

Expected Operations.—At King's College Hospital, on Saturday, (this day,) Mr. Fergusson will perform a plastic operation for the covering of a fungus protrusion of the testis; and Mr. Bowman has a ligature of nævus, a tenotomy operation, and an excision of diseased glands from the groin. At the Metropolitan Free, on Monday the 16th, Mr. Hutchinson has a case of diseased hip-joint, in which it is intended to explore the parts, and probably to excise the head of the femur. At St. Mark's Hospital, Mr. Salmon has a batch of eight or nine cases of rectal disease, some of them of much interest, to be submitted to operation at 9 a.m. on Monday.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 158.—Vaccinating Dogs to prevent Distemper.

Last week I had to see a patient in the country, a master of a pack of hounds. I found his huntsman vaccinating a litter of puppies, as a preventive against distemper. He told me he had done this for some years past, that the success was quite complete, and that the practice was becoming general with huntsmen. This is curious. Is the distemper of dogs variola? Or is vaccination a preservative against other diseases than variola? I am, &c.

Upper Grosvenor-street, Dec. 7, 1856. T. S. W.

No. 159.—Have Deer a Gall-bladder?

A patient of mine has a park-keeper, who has killed deer for many years past, and he told me the other day that neither the red deer nor fallow deer have any gall-bladder. I don't pretend to much knowledge of comparative anatomy, and the fact was new to me. Perhaps it may be so to some other

Dec. 6, 1856. Country Practitioner.

No. 160.—Cod-liver Oil.

Can you inform me if any chemist has repeated the analysis of cod-liver oil by Dr. de Jongh, published in the *Chemial Gazette*, 1842-43, p. 709, and re-published in many books subsequently.

The constituents of this oil, therein enumerated, are twenty-seven, including "peculiar substances," of one of which the 0·00500th part is said to have been separated. This must surely be a great triumph of chemistry, if confirmed—almost equal to the infinitesimal chemistry of the homœopaths. As, however, Dr. de Jongh's name is not prominent among chemical analysts, otherwise than in connexion with this examination of cod-liver oil, it would be satisfactory if this oft-quoted analysis were confirmed by some well-known chemist, on whose accuracy and competency the Profession could rely. I am, &c. Enquirer.

No. 161.—The Gold-Headed Cane.

In the capital sketch you gave us of Arbuthnott after Hogarth, Dr. Garth and his Gold-headed Cane are interesting and prominent features. Perhaps some of your learned readers will tell me why the Ancient Doctor, not Garth in particular but the Doctor in general, always held his gold-headed cane to his nose. I am, &c.

Bath, December 10, 1856. Curiosity.

No. 162.—Treatment of Spinal Curvature.

Although Orthopædic Surgery may boast of numerous triumphs in the present day, and although the literature of this branch of Surgery is exceedingly copious, I should be glad to know, as the result of practical experience, whether the deviations from the straight line which are often seen in growing young ladies, and sometimes in boys, really require mechanical treatment, or whether they will rectify themselves by the adoption of general measures for the improvement of the health? In the majority of such cases I apprehend that there is no disease of the vertebræ, and that the curvature depends only upon weakness of the muscles of the back. Mr. Syme, of Edinburgh, and, I believe, some distinguished Surgeons in this country, are entirely opposed to the applica-

tion of mechanical supports; and if their use is really dangerous or even useless, such means ought certainly to be abandoned. It seems to me, however, that in some instances the deformity is too great to admit of self-rectification by muscular action, and that the moderate use of a well-fitted instrument must prove beneficial. I should very much like to have the opinion of some practical men upon the subject.

I am, etc.

December 10, 1856. CHIRURGUS.

No. 163.—RELATION OF CANCER TO TUBERCLE.

It is generally believed, and upon good grounds, that tubercle and cancer do not develope themselves in the same individual, but nevertheless it is argued by some distinguished authorities, (among others, I believe, Dr. Christison,) that both diseases spring from an analogous morbid predisposition, and are, in fact, as it were, branches proceeding from the same trunk. It probably happens, therefore, that a family presenting this morbid tendency exhibits in one of its members pulmonary phthisis, in another member, cancer, although these two diseases do not co-exist in the same individual. I remember a case in my own practice which illustrated this view, where in one family which I attended, three of the sisters died of phthisis, and a brother died of extensive medullary sarcoma. It is probable that such instances are common, and it would be an interesting point in vital statistics to collect a number of analogous facts. If such a relation as is here indicated could be established by a number of observations, the pathogenesis of tubercle and cancer would be in some measure explained. Among your numerous readers, some could no doubt throw light upon this very interesting question.

I am, &c. A LONDON PHYSICIAN.

December 8, 1856.

ANSWERS.

No. 150.—VALERIANATE OF AMMONIA.

M. Pierlot states, that ʒvii. ½ of valerian root yields to distillation gr. iv. of the acid; and the following is the formula he recommends after numerous trials. Take of aq. dist. 95 parts (by weight), and of valerianic acid 3 parts; saturate this with carbonate of ammonia, and then add 2 parts of alcoholic extract of valerian. He recommends that the dose given at first should be a teaspoonful night and morning. The trials that have hitherto been made in France seem to justify the preference of this to the other preparations of valerian in nervous affections, hysteria, and especially in obstinate neuralgia. Some satisfactory trials have also been made with it in epilepsy at the Bicêtre and Salpétrière. See *Bull. de Thérapeutique*, Oct. 30.

No. 153.—DOG-LATIN.

Allow me to suggest, by way of a reply to Query No. 153, concerning the origin of the phrase Dog-Latin, that this may possibly be a corruption of "Doctor's latin," or the latin employed in Medical prescriptions; indeed, the way in which the terms used in these documents are sometimes abbreviated would seem to justify the application of the above term to language thus *cur-tailed*. I am, etc. ETYMON.

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Medical Times & Gazette.

SATURDAY, DECEMBER 13.

HOSPITAL ELECTIONEERING.

WHILE Corporations, Universities, Associations, and Members of Parliament are year after year vainly endeavouring to agree upon a scheme of Medical Reform acceptable alike to the Public, the Government, and the Profession, we must take care not to lose sight of those internal professional reforms which we may hope to see effected by our own exertions. When, in all the great offices of the State, the spirit of the age is tending to raise the right man into the right place; when earnest attempts are being made to secure the best men for the best places by the institution of competitive examinations; when all appointments in the service of the East India Company, in the Civil Service of our own Government, and in the Artillery and Engineers, are filled up already by the men who appear at the examinations to be the best fitted for the vacant posts; the great offices of our Profession—our Hospital appointments—are filled up in a manner which must be reformed, if our Profession is to keep its place amid the advancement of science at home and abroad.

The late election at the Ophthalmic Hospital is a fair average specimen of what a contested election is at any of our large Metropolitan Hospitals. Four hundred and sixty persons voted, and upwards of three hundred guineas were added to the funds in consequence of new Governors having been made for the purposes of this election. There is no great significance in these two simple statements to the uninitiated, but to the expert what a story they tell! Four hundred and sixty Governors voted, four-fifths of the entire body. More than six hundred Governors to be canvassed, therefore. Some of our readers know what a canvass is, others do not; we may, therefore, enlighten them a little as to the steps by which an Hospital appointment in London is obtained, and this from the actual experience of those who have gone through the ordeal.

Let us suppose Mr. Aspirant has made up his mind to become Assistant-Surgeon to the Hospital of St. Barnabas. He has been a pupil of one of the Surgeons, has been Dresser and House-Surgeon, has assisted in the out-patients' room or dead-house, and possibly has done something as Registrar or Demonstrator; all very fit and proper preparations for the Assistant-Surgeoncy, if used merely to ensure competency and not for the purpose of monopoly, and exclusion of extraneous merit by indigenous mediocrity. But Mr. Aspirant has rivals. He is supported by one Surgeon; but each of the Surgeons has a favourite pupil. All know full well that mere Professional merit will not decide the contest. The Governors must be canvassed. Mr Aspirant has become a Governor of the Hospital, and has made himself known to the most busy persons by attending the weekly boards. He procures a list of Governors. He buys a large book, in which he enters their names and addresses, the maiden names of their wives, the names of their brothers and sisters with their wives and husbands, and the names of any relative's friends or connexions through whom interest can be made. The great business of his life is to cultivate this connexion. For months or years before a vacancy is declared Mr. Aspirant is known to the Treasurer and Weekly Board, and to many of the Governors as a most promising young man, who stands well for the next vacancy. By civility and assiduity he has secured directly or indirectly a very fair share of votes long before any vacancy

has been declared. He has written out thousands of letters, one directed to every Governor, and others directed to their friends and connexions, all ready to post, with the mere addition of a date, the very moment the anticipated vacancy occurs. This is no fancy sketch. Such books as we have described have been kept and are kept; and on one occasion a candidate posted two thousand five hundred letters within three hours after a vacancy was declared. Our hero has selected a Committee of some dozen or twenty of his friends, not on account of their bashfulness, who have promised to arrange the details of the canvass when it commences, and to call in succession upon the unfortunate Governors who have not promised their vote and interest to our friend Aspirant, and so to pester them with an account of his merits and his extraordinary Testimonials, that the busy banker, merchant, or shopkeeper, or the good-natured Lady Bountiful is compelled to give in. Then, the sheet of Testimonials is a curiosity. Every man of any eminence who ever shook hands with young Aspirant has recorded his deliberate conviction that he is the very man for the post. Possibly the same thing is said by the same man, in words slightly varied, for each of the candidates, so that the undecided Governor, fairly bewildered, yields to the most importunate. If a majority cannot be obtained in any other way, money must be spent in the creation of new Governors, just as in the late election 300 guineas were added to the funds of the Ophthalmic Hospital.

Do not let it be supposed that we are blaming those who obtain their Hospital appointments by fair electioneering. According to the present system, however distasteful the task may be, it must be performed to ensure success; and on the appointment hangs the destiny of a life. It is worth any expenditure of time, labour, or money. If Aspirant did not electioneer, Bareface would. Aspirant would lose, and Bareface win. Professional ability or merit has no further weight in the matter than the show which can be made on the sheet of Testimonials, and we all know what these are worth. No man, however great his merits, who refused to stoop to the arts of electioneering, would have the least chance of success if opposed by the veriest dolt who ever passed the College, provided the latter condescended to solicit the Governors for their votes. The man who would win must canvass. We would go a step further, and say that the order, perseverance, and tact necessary for a successful canvass are some test of a man's efficiency for the ordinary duties of life; and that a man who thus shows his practical energy may possess qualities which make him a more useful member of society than a more highly educated but less energetic student. We blame no one for canvassing, therefore, and if the thing must be done it should be done well. But surely there can be no necessity for any such system. Surely it must be as unnecessary as it is inexpedient to have the Medical Officers of our Hospitals appointed by the whole body of Governors.

It may be said that the Governors support most of the Hospitals, and have a right to exercise some power and patronage. We believe that a very small proportion of Governors or Subscribers really consider the power of voting for a Medical Officer to be a privilege. Some of them exercise their power in the most careless and indifferent manner. They will give their vote to the first who asks for it, to save all further trouble. We know of one instance in which a candidate gained a sufficient number of proxies to secure his election by sending round proxy papers with his testimonials, and a stamped envelope directed to himself. Some of the Governors when asked why they voted for him said, "Oh, we did not like to keep his penny stamp, and as we had to send it back to him, it was no trouble to put the proxy in the envelope." They did not value their privilege, power, or patronage, at more than a penny. It is even said that, in this very election at the Ophthalmic Hospital, one of the candidates was considerably injured by accidentally sending Testimonials weighing more than the stamp he affixed to them covered, so that those who received them had to pay two-pence postage. No amount of Professional merit could counterbalance the fatal two-pence. Surely a privilege cannot be highly valued which can be bought for a penny and sold for two-pence. We are acquainted with some Governors who have ceased to subscribe to Hospitals or Dispensaries, because they had been so pestered at an election. We know others who accompany their donations with an express stipulation that they are not to be troubled about any of the Hospital concerns. We could name several who readily consented to subscribe to an institution in which the whole executive and administrative power is vested in a small Managing Committee, and expressed their pleasure that they could subscribe to an institution in which they did not incur responsibility by their subscription. We are acquainted with Governors who really feel this responsibility as most painful. They have a well-founded dread of putting an inefficient man into a most important office, yet they must judge of the merits of contending candidates entirely upon the opinion of others. They give up a great deal of time and attention, and at last come to the conclusion either to oblige some friend or to give their vote according to the advice of some one of the Committee in whose knowledge they can confide. This, we apprehend, points to the remedy for the existing evils. If the Committee who manage the financial concerns and the general affairs of the Institution be composed of gentlemen of ability, experience, and honesty of purpose, who have time to devote to it, and who take an interest in its welfare and utility, these are the very men who should be entrusted with the important and responsible duty of filling up all vacant Medical appointments. They would naturally be greatly influenced by the advice of the existing Medical Staff, who might be associated with the Committee for the purpose. We do not maintain that this expedient would be perfect, or altogether exclude the influence of clique, favouritism, or family influence; but it would be a great improvement on the present system, which imposes a painful responsibility on the benevolent public, a derogatory task upon the members of a learned Profession, and which, by frequently leading to the appointment of an inefficient man to an important place, becomes injurious to the best interests of science and humanity.

THE WEEK.

It is probable that one of our Courts of Law will soon have to settle the question whether homœopathic globules are or are not medicines, and whether their sale brings the vendor within the power of the Apothecaries' Company. We should be sorry to raise the members of the declining sect to the dignity of martyrs, and should prefer to see them sink quietly into the oblivion so rapidly clouding over them; but there is one consideration which we trust will not be lost sight of. If a Medical man neglect a patient, and the patient suffer from his negligence, the Medical man may be cast in an action with heavy damages. Then comes the question, Is a patient neglected who is treated homœopathically? It is said, "Oh, the doses are imponderable, and therefore harmless." But there is as great danger in medicine, in leaving undone those things we ought to have done, as in doing those things we ought not to have done. Common-sense and scientific experiment have alike proved that homœopathic globules can possess no Medical property whatever. The danger of trusting to them, therefore, in a case of acute laryngitis, croup, typhus, delirium tremens, and other acute and dangerous diseases, is

self-evident. The patient who trusts to them dies as much from neglect as if left without treatment.

The members of the Metropolitan Board of Works do not seem to understand that unless they can make it appear plain to the meanest capacity that they are able and willing to convert the Sewage of London into good manure and pure water, the public will not entrust them with the management of the matter. We are not particular as to details, not stingy as to expenditure, but we demand that our agricultural treasures shall not be wasted, and that our river shall be purified. If the Board of Works insist upon destroying our health and emptying our pockets at the same time, the sooner the Sewage Works are entrusted to other hands the better.

Dr. Smart, Surgeon of H.M.S. Diamond, whose name will be well known to many of our readers by various interesting communications made known through this Journal, has just undergone a Court Martial, which, after lasting five days, resulted in his complete acquittal. On board many ships in the Navy, commanded by officers imperfectly acquainted with their duties, the manner in which boys are punished often injures their health, and it becomes the duty of the Surgeon to protect them. Dr. Smart appears to have done his duty carefully in this respect, and thus to have incurred the displeasure of the Captain and Lieutenants. He also animadverted on the punishment of boys in his Quarterly Medical Report to the Director-General of the Medical Department. Dr. Smart deserves great credit for the manliness with which he fulfilled his duty, and for the ability with which he refuted the charges of insubordination and conspiracy brought against him. The result will encourage his brother officers to do all that is in their power to preserve the health of their ship's company, however distasteful their services may prove to hot-headed Captains and beardless Lieutenants.

Some interesting experiments were made at the Society of Arts last week by Dr. Chambers, to test the efficacy of a plant known as *Guaco* in Central America, or a plant nearly resembling it, as an antidote to the bite of numerous snakes. It is a species of Serpentaria. Rabbits and puff-adders were the executioners and victims. The results were inconclusive, and Dr. Chambers believes that we must not confide in reputed antidotes to protect the lives of such of our countrymen as may be sent to clear the Isthmus of Panama for an inter-oceanic railway or canal. He would trust more to thick boots, stockings, gloves, etc., defence with a whip, and warm comfortable traps for the snakes. Mr. Temple, Chief Justice of Honduras, who brought over the reputed antidote, narrated a curious fact, showing that a thick leather boot will not always protect a person from the bite of a snake. He says :—

"A man wearing a pair of stout boots, which came up to the knees, shouldered his axe one fine morning, and proceeded to the forest to cut wood. After he had aimed a few strokes, a snake, not approving of his proceedings, bit him in the calf of the leg. Our woodman, however, thinking that his boot had sufficiently protected him, laughed at the snake, and went on with his work. But after a little time, a feeling of sickness and stupor came over him, and he thought it advisable to wend his way home, which he did, and died in about an hour after he had got there. The boots—they were capital boots—were sold. The fortunate possessor, as he thought himself, carried them home, and then put them on to see if they would fit. In a few hours he was a corpse. This was considered very strange—some thought it was apoplexy, some paralysis, and some thought it was an affection of the heart, but nobody thought of suspecting the boots. In a short time they again had an owner. It will scarcely be credited—but it is a fact—this man died also. At length the boots were examined—what caused the investigation I do not know, but I suppose the fell Atropos thought she had done enough mischief with a pair of boots—and in one of them was found sticking the tooth of a snake, and in such a manner that in drawing on the boot the leg must inevitably be scratched by it."

It would be very desirable to make a sufficient number of experiments to show whether either the true or false *Guaco* really possess any such power as is attributed to it. In the meantime such of our countrymen as are likely to be employed in the jungles of India or the forests of Central America should be taught to confide rather in their own vigilance and presence of mind, than in any antidote. Immediate suction of the wound, a tight ligature above the bitten part, excision or the actual cautery, with stimulants internally, afford a far better chance of escape than any antidote we are yet acquainted with. It would be well to diffuse knowledge of this kind among intending settlers—even to details—showing, for instance, how the bitten part might be effectually and instantaneously cauterized by stuffing it with gunpowder, and exploding.

The recent decision of the Council of the Royal Medical Benevolent College to raise the sum paid for the Exhibitioners of the School from £30 to £40 per annum, continues to excite much dissatisfaction among many of the Governors and friends of this excellent institution. A memorial is now in course of signature requesting the Council to modify or annul their recent resolution, and this document has already received upwards of one hundred and fifty signatures from gentlemen residing in the counties of Middlesex, Surrey, Hampshire, the Isle of Wight, Sussex, Kent, Yorkshire, Lincolnshire, Essex, and Wiltshire. Another object of the memorialists is to obtain from the Council of the College a statement of the accounts on which the late alterations in the charge made for the boys are founded; and it is urged that at many establishments of a similar character, board and education may be obtained at cost price at a rate below £30 per annum. It is to be hoped that the Council will not refuse the very reasonable request which is thus made to explain the basis of their calculations, and we understand that matters are likely to take a very favourable aspect, as both parties are inclined to mutual concession. Whether the present rate of payment be retained or not, we think that it is only reasonable that the Governors and friends should be informed of the state of the accounts, and of the expenditure incurred in the school, as distinguished from the other departments of the College.

We have this week to record another instance in which a Union Medical Officer has been ill-treated by a Board of Guardians, and in which, we regret to add, the Poor-law Board have taken the part of the Guardians. The case, as presented to us, is so monstrous that we have some difficulty in believing that the Poor-law Board could have behaved in the arbitrary manner which is imputed to it, although, with regard to local Boards, they are so notorious for their ill-treatment of members of our Profession that we cannot wonder at any act of petty tyranny which a village clique may commit. According to the account which has reached us, Mr. Bakewell, the Medical Officer of one of the Swindon districts, has been called to task by the Guardians for ordering some meat for a poor lying-in woman who was suffering from the effects of hyperlactation, the reverend Chairman of the Board being scandalized because the woman who was thus suffering was not married, and threatening to discharge the Medical Officer, on the ground that he was encouraging prostitution! This precious Board then proceeded to trump up some charges of a most frivolous character, which they transmitted to the Poor-law Board, and the latter has called upon Mr. Bakewell

to resign his office. We feel that this case requires explanation, and we refrain from further remark at present, in the hope that we may receive some additional information upon what appears to be a monstrous act of tyranny and oppression.

A friend in Dublin encloses the following paragraph from *Saunders's News-letter*, observing that he had not been able to ascertain if it be really true that the authorities have had recourse to Clairvoyance to make discoveries respecting the murder of Mr. Little:—

"A suggestion was made, to the effect that clairvoyance might be instrumental in the discovery of minutiæ which had escaped the penetration of the detective police, and three several consultations were accordingly held—in one instance under the immediate auspices of parties high in authority in connexion with the railway, and very interesting details were given not only as to the mode by which the ingress and egress of the murderer was effected, the number of blows struck, etc., but one clairvoyante even went so far as to suggest means which, if adopted, must lead to the conviction of the party; but unfortunately for the interests of this boasted science, the versions given in each of the three *séances* differed essentially and irreconcilably, and matters had accordingly to go back into the old humdrum system of police inquiry, the members of which force held themselves studiously aloof from all such vain imaginings."

"Vain imaginings" indeed! We sincerely hope such disgraceful trifling in a matter of life and death has not been permitted in 1856. Can it be true, that when some future biographer has to tell the life-story of Our Great Ones of To-day, he will have to characterize the scientific spirit of the time as degraded by the absurdities of table-turning, spirit-rapping, and homœopathy, and the judicial system as admitting the mummeries of Clairvoyance? Verily, we live in a glass house, and should not throw stones at our ancestors in their palace of witchcraft, charms, fairies, astrology, and transmutation!

On Wednesday evening a crowded meeting was held at the Russell Institution, in Coram-street, to hear a discussion upon the propriety of despatching another expedition in search of the party who accompanied Sir John Franklin to the Arctic regions. The meeting was addressed by Dr. King, Lieutenant Pym, R.N., Dr. M'Cormac, R.N., Mr. Selman, the Naturalist who accompanied one of the expeditions, and other gentlemen interested in the proposed exploration. It seemed to be the general impression of the speakers that a double party should be sent, one by sea through Barrow's Straits, and the other by land down the Great Fish River, who should meet each other at a point previously resolved upon. Much doubt was expressed whether Sir John Franklin or any of his companions were really living, but it was thought possible that some of the adventurers might still survive, and that one last effort should be made to rescue them. Dr. King and Lieutenant Pym have offered to conduct the expedition, the former to take the land route, and the latter the passage by sea; and notwithstanding the opposition to the scheme on the part of some leading Journals, it is not improbable that the services thus volunteered may be accepted.

The School of Physic in Ireland — Address to Dr. Montgomery.—The following graceful tribute to the long and important services rendered by Dr. Montgomery to the School of Medicine, has been paid by his colleagues. To receive such an expression, from such men, of their sense of the remarkable ability, great industry, and steady perseverance with which he discharged his professorial duties, and of their respect for his distinguished professional character, must, indeed, be most gratifying to Dr. Montgomery. The address was read by Dr. Stokes as follows:—

"Trinity College, November, 1856.

"Dear Sir—We cannot permit you to retire from the chair in the School of Medicine in our university, which you have so long and so honourably filled, without not only expressing our feelings of regret upon the occasion, but also recording our unanimous opinion of the exemplary manner in which you have discharged its important duties. It was principally through your instrumentality that the professorship of midwifery was established by the College of Physicians, and attendance on its annual course of lectures rendered an essential part of medical education. To you was assigned the honour of being the first to fill that chair. During a period of thirty years you have discharged its onerous duties with great ability and with undeviating regularity, and by the reputation thus acquired you have conferred dignity on the appointment, and now constitute a bright example to encourage the student in medicine to pursue his course with zeal, with steady perseverance, and with a determination always to maintain a character for high and honourable conduct. By your indefatigable industry and deep research, as also by your excellent and interesting lectures, obstetrical science and practice have been improved and advanced in this country and in Great Britain; while your important discoveries and valuable publications have acquired for you an European reputation. As our colleague in the school of medicine we cannot but feel sincere regret at a separation caused, we are well aware, by the public demands on your time and the pressure of professional engagements. During our long intercourse we have ever found you the cordial, confidential, and honourable friend, the intelligent adviser and the assiduous and cheerful fellow-labourer in our arduous duties, and though our connexion with you as professor in the same school has been severed, we shall ever cherish a lively and pleasing recollection of the many years we have been together. In all the other relations of life, professional and social, we trust that we may long continue to maintain the same mutual feelings of friendship and esteem. Most sincerely wishing you all happiness, believe us to remain, dear Sir, faithfully yours,

"William Stokes, Regius Professor.
J. W. Cusack, University Professor of Surgery.
Robert Harrison, Professor of Anatomy.
James Apjohn, Professor of Chemistry.
W. H. Harvey, Professor of Botany.
Robert W. Smith, Professor of Surgery.
John T. Banks, King's Professor of Physic.
Jonathan Osborne, Professor of Materia Medica.
Robert Law, Professor of Institutes of Medicine.
F. Churchill, Professor of Midwifery.
Thomas Brady, Professor of Medical Jurisprudence."

Dr. Montgomery returned the following answer:—

"Gentlemen—It is almost superfluous for me to assure you that I receive, with heartfelt thankfulness, this most flattering testimony of your good opinion with which you have so greatly honoured me. I beg you will believe that I regard it not as a subject of mere ephemeral gratification or pride, however intense may be the pleasure it affords me, but that I trust to preserve it as an honourable and enduring record for the guidance and encouragement of my children and their children after them, who will, I hope, hereafter look upon it as a powerful incentive to strive earnestly—no matter how long or how arduous may be the struggle—to win the approbation of the wise and good, which they should ever feel, as I do at this moment, to be a reward of inestimable value, which neither wealth can purchase nor patronage procure them. I wish to add, that although now officially separated from the School of Physic, that severance in no way abates my cordial anxiety for the welfare and success of an institution in which I so long laboured, and to which I owe so much. And it is my most fervent hope and wish that health, happiness and prosperity may attend you, my kind friends and colleagues, who so ably uphold its character and promote its interests.

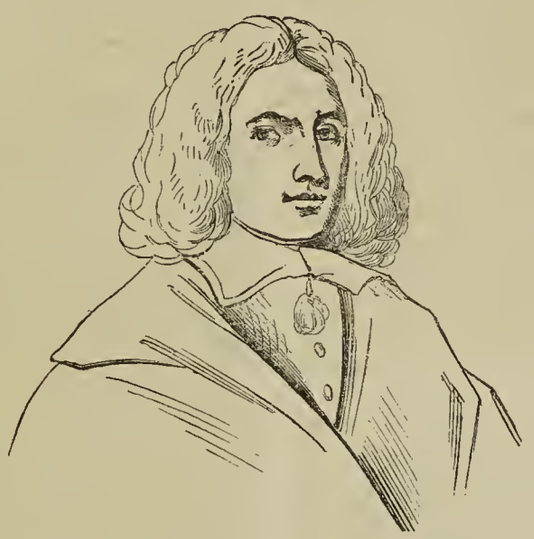
"W. Montgomery."

Medico-Chirurgical Society of Edinburgh.—The following is a list of the office-bearers just appointed:—*President.*—Professor Miller, F.R.S.E. *Vice-Presidents.*—Robert Ormond, M.D.; Benjamin Bell, Esq.; Alexander Wood, M.D. *Councillors.*—H. D. Littlejohn, M.D.; John Coldstream, M.D.; Patrick Newbigging, M.D.; Alexander Keiller, M.D.; Andrew Wood, M.D.; William R. Sanders, M.D.; Charles Wilson, M.D.; John Burn, M.D. *Treasurer.*—John Struthers, M.D. *Secretaries.*—William T. Gairdner, M.D., 52, Northumberland-street; J. Warburton Begbie, M.D., 21, Alva-street.

OUR GREAT ONES OF THE PAST.

MEN OF THE BRITISH SCHOOL.—No. III.

RICHARD WISEMAN.



We step back a hundred years from the period of our last memoir to fix an eye for a short time on a representative of Physic, or rather of Surgery, in the times of the great Protector and the reckless second Charles. We have before us the Serjeant-Chirurgeon of that merry monarch, one Richard Wiseman, a surname in itself a fair and short epitome of the man its owner.

Not many facts for the gossiping reader have we in store regarding the life-history of our present hero. We neither know when nor where he was born, or where or when he died. We have ransacked the writings of his contemporaries without getting a glimpse of him; even newsmonger Pepys throws no gleam. We have rummaged out biographies with little avail: the "Biographia Britannica" is mum; Chalmers is mum; Gorton is mum; Lempriere is mum; Aikin gives us an unsatisfactory history, and refers us to the "Biographie Universelle." The "Biographie Universelle" gives the original of Aikin, and refers to—nothing! where, then, did it get its information? This was, for a time, a mystery; but one at last cleared up in the perusal of Wiseman's own works. It is obvious that the clever writer in the "Biographie Universelle" has, in despair, dug manfully into these works, and, by putting this and that together, has spun out his short yarn, which runs in effect as follows:—

Richard Wiseman was a distinguished Surgeon of the reign of Charles the Second, and was Sergeant-Chirurgeon to that potentate—(fact got from the works of Wiseman and their title-page.) When he was born, what his parentage, and when he died, nobody knows. (Works haven't a word on these points; could scarcely be expected to have the last.) He first appeared as a Surgeon in the civil wars during the reign of Charles the First—(gathered from the Essay on Gunshot Wounds.) He accompanied Prince Charles in his rovings through Holland, France, and Flanders, and was present at the battle of Worcester—(latter fact again obtained from the Gunshot essay;) was taken prisoner at this Worcester battle, but was before long liberated, and, coming to London in 1652, acted first as an assistant to Mr. Edward Molin,—(fact got from treatise on Gonorrhœa),—and afterwards on his own account. On the Restoration was made Sergeant-Surgeon to the king, and on May 24, 1676, published his Chirurgical Treatises, having, as he says in the Preface, "made a vertue of necessity, and employed those hours for the publick service which a frequently repeated sickness for the twenty years last past denied him the use of in his private occasion;" so that it "pleased God by casting him into such a condition to give him opportunities of thinking as well as practising." Such are the few biographical notes which have been gathered regarding Wiseman, excepting that the quotations from his Preface have not been given in full. One or two more life facts we have ourselves dug out on the "Biographie Universelle" system. They are not of much note. He attended the king, Charles II., at the Hague, and was with the court at St. Johnson's, in Scotland. When serving in the civil wars he was under Sir Alexander Fraser, Chief Physician to the first Charles. He lived at one time, early perchance in his career, in the Old Bailey, and had a kinsman named Jacques Wiseman, who seems to have been an assistant to him in important operations.

But, although the minutiæ of Wiseman's daily life are not laid before us, we fortunately retain his works, and from these we shall be able to extract many points of great interest, which will not only serve to indicate the character of the man, but also the state and condition of chirurgical science at the time he wrote and practised. It is well for us, too, in this respect, that his writings are not confined to one or two particular points. They embrace the greater part of chirurgical science, and they come from a man who was regarded as a practical authority, not only during his life, but long after his demise. His book was looked on by younger Chirurgeons as the standard work for the information of learners, and by older men as the book of reference for solid Practitioners.

The works themselves were all connected in one volume, under the title "Several Chirurgical Treatises;" they were published by the king's bookseller, R. Royston, and by B. Took, at the "Ship," St. Paul's Churchyard. The epistle to the reader, signed by the author, bears date May 24, 1676.

It has been customary to look upon the reign of Charles II. as a backward or receding period in science; and it is true that Charles himself cared more for the pleasures of this life than for its realities; that he ignored scientific men, or held them free of encouragement; that he was, in a word, an unprincipled scapegrace, who, as Hume most justly observed, "rendered his reign a misfortune to the kingdom, and entailed upon himself the contempt of all the other powers of Europe." Notwithstanding this deficiency of royal patronage, it is, however, a libel to say that the age of Charles was wanting in great scientific talent. In this reign the Royal Society had its infancy cherished; and many men, whose names we now refer to with proper reverence, lived and laboured. Now lived Biggs, to explain the structure of the eye; Sydenham, to write some of his long read works; Willis, to speak of fermentation in diseases of the fever class, and to disclose some leading facts about the anatomy of the brain; Sir C. Scarborough, to insist on the introduction of the geometrical and mechanical sciences into the study of anatomy; and Wiseman, to give a new impulse to chirurgery.

In the general sciences, Boyle stood forth to reveal various truths connected with chemical physiology; Newton was produced, to point out, a little later, the theory of gravitation; while Butler and Dryden supported the poetic crown. Surely, with such men pre-eminent, the age was not failing in intellectual power.

If we guage the scientific part of this period, we find in it the germs of a distinct chemical philosophy, and the strict principles of mathematical learning; yet the connexion between these two branches of science was so ill understood, that an serious literary collision between the professors of each was not an uncommon occurrence.

To show what one present in the age itself thought of its scientific position, in special relation to surgery, we may quote from Wiseman's Preface a few ideas which directly indicate his feelings and views. Speaking of his own works, he says, in regard to the novelties he has introduced, that "such ancient Practitioners as are unwilling to be now learning a new lesson, will be angry that those definitions and descriptions, and sometimes methods of cure, are needed, from which they learned when young; those being the basis on which they have built the whole superstructure of their prac-

tice." To these, therefore, he does not address himself, but to "younger men, who have their principles and practice yet to choose." "Others," he continues, "wholly taken up *with the novelties wherewith this age aboundeth*, will be angry that all new notions are not here pursued to nicety, and many little anatomical and chemical punctilios inserted and brought in on all occasions, instead of the old way of expressing the accidents of diseases, with their causes and cure. I would have these men consider that I am a practiser, not an academick; that I delight in those things as far as they are useful to life, but have thought it too great a digression from my present purpose to stuff up a practical book with such philosophical curiosities, which become it just as well as it would become a divine to fill a practical discourse with scientific distinctions." A little further on Wiseman laments also the inaptness of the theory as applied to the practice of disease. "When," he remarks, "the young Chirurgeon shall find the cure easie in theory, and appear so at first in the practice too, yet suddenly deceive him with a relapse, and not only once, but often delude his best endeavours; when the bystanders and persons concerned shall begin to accuse him of knavery in his proceedings, and think him to pull back a cure, whilst he is rolling Sisyphus his stone, which will tumble down whether he will or not; he will then wish that all other Practisers had done what I have done in this treatise, viz., recommend their observations, both successful and unsuccessful, thereby increasing knowledge in our Profession, and leaving sea-marks for the discovery of such rocks as they themselves have split upon."

In the few passages here quoted the reader will gain a fair knowledge of the character of Wiseman; a man of practice at every turn, conservative, yet liberal withal, and given to the observation of nature. Such men are always useful, and always make way; they may not perform great discoveries, for their timorousness in thought, and their hard fact propensities, prevent this accomplishment; they, nevertheless, lay the basis on which after-discovery rests. They see as far as the thing itself, and they chronicle what they have seen faithfully. If they do more, they do wrong, and wander even into wilder speculations than does the man whose cast of mind leads him exclusively into difficult and abstract inquiries.

To return to Wiseman's works. His volume is made up of eight treatises; the first is on tumours, the second on ulcers, the third on diseases of the anus, the fourth on king's evil, the fifth on wounds, the sixth on gun-shot wounds, the seventh on fractures and luxations, the eighth on lues venerea.

Tumours.

Wiseman defines a tumour after Galen, viz., as "a disease in which the parts of the body recede from their natural state, by an undue increase of their bigness." Respecting the causes of tumours, he considers them according to their time and place, and thus calls them—1, antecedent; 2, conjunct. The antecedent cause being that which has not actually produced a tumour, but is thoroughly mixed with the blood, or otherwise lodged in some convenient place where it is not troublesome to nature, at least to the part, though, if not prevented, it does produce the feared effect. Of this sort of causes he reckons all impurities in the blood which do not start out into the solid parts; as the matter of an erysipelas, phlegmon, parotis, and bubo, before a crisis is made; so also any tumour in the body which, lying in any part of it, is apt to be translated to another. By a conjunct cause he means the very matter of the tumour that is already impacted into the part, upon the increase of which the tumour increases, and on the diminution of which it diminishes.

In regard to the matters of which a tumour may consist, he attributes their original to humours, to wind, as in emphysema, and to blood itself, as in varix, ecchymosis, and aneurism.

Cure of Varix.

"The varices ought not to be cured," says our author, "unless they be painful and extended into a large tumour, or ulcerate and bleed much, for they preserve health. But, if there be a necessity of curing them, it ought to be begun with purging and bleeding, not once or twice, but often repeated; and if the viscera be in fault, they ought to be strengthened and amended; after which the cure may be endeavoured by astringent and exsiccant medicaments, and those to be applied with convenient bandages to press back the blood coagulating in the vessel, and moderately resist the current. If these suffice not, then, according to the ancient practice, you are to proceed by section, dividing the skin and separating the integuments; then, having raised the varicose vein, you are to pass a ligature above and another beneath it, making a deligation of them; then slit the vein, cast out the gross blood, and afterwards digest and heal it. In my practice I met many diseased with varicose swellings, but I never met with one patient that cared to hear of the cure by ligature; nor, indeed, have I seen any great reason for it. For if the unsightliness and pain be in the legs, it may be helped by wearing a laced stocking, and placing a card, a piece of vellum, or bit of beaten lead between them. A laced trowze will do much for the thigh. When they affect the belly they may be restrained by a bracer. The cure of hernia varicosa is by a good bandage, viz., a bag-truss."

Ideas about Aneurisms.

"An aneurism, according to my description, is an ecchymosis, and, indeed, the highest species of it. It is raised, according to the opinion of authors, by dilatation or relaxation of the artery; they supposing the blood to have burst its passage through the first coat, and dilated the second, thereby raising the tumour. I am apt to believe that there is no such thing, but that it takes its rise from blood bursting quite through the artery into the interstices of the muscles, where it raiseth a tumour suitable to the cavity it findeth. But this tumour consisteth of blood extravasated, the artery lying un dilated all the while."

That Wiseman here committed a great practical mistake is obvious enough. He was, as it would seem, misled by the circumstance of having met with several cases of false aneurism. In regard to his treatment of aneurismal tumours some of it is dismal enough. Compression of the tumour, the application of unguents, bleeding in urgent cases, opening the tumour in one case, and after-dressings that the wound might digest, and such like proceedings, form the bases of his plans. In one case, however, he tied the artery. A man was affected with an aneurism of the right arm occasioned by phlebotomy. Some proposed to amputate, as the tumour was large, much inflamed, and painful. There were three other Chirurgeons in attendance, Mr. Arris, Mr. Hollier, and Mr. Gardner. Wiseman proposed amputation, or deligation of the artery. The deligation was decided on. Four days after, all the Chirurgeons met; the patient was placed in a chair towards the light. Wiseman removed the dressings, and made a ligature four fingers' breadth above the tumour, on which Mr. Hollier made a gripe. Some others held the hand and lower part of the arm. Wiseman then made an incision down the length of the tumour. That done he drew out the grumous blood with his fingers, and cleaned the wound with a sponge. Then desiring Mr. Hollier to slacken his hand, upon which the artery discovered itself by the blood spouting out, he, Wiseman, passed a needle under the upper part of the artery, tied that and cut off the end of the ligature. Near the wound made in the artery by the letting blood there was a cartilaginous body formed, which hindered his coming to the artery. He, therefore, cut it away, passed his needle, and made a second ligature. He then dressed the wound,—[Quiet, quiet! good Chirurgeon of 1856, with your head full of the first intention!]—dressed the wound with pledgets spread with common digestive "ex terebinth. dipt in pulv. galeni,"—[Quiet, patient, quiet!]—and applied "empl. diachal. malaxed with ol. ros," and "rowled it up to the ease of the patient." Upon that the patient was put to bed, and had an anodyne draught. He slept well. The third day after, the dressings were removed, and all was found safe; "the lips of the wound tending to digestion." The wound was continued to be dressed until it well digested. From that time it was dressed with sarcoticks, the loose flesh was rubbed with the vitriol stone, and the cicatrizing of it was hastened with "aq. medicamentof." Wiseman attended until the ligatures fell off, then left the wound to the family Surgeon. The patient did well, and recovered the full use of his arm.

Treatment of Cancer.

Mr. Wiseman's ideas about the differences of cancer are not so far astray as might be supposed. On the subject of treatment so much can hardly be said in his favour.

There are, in his opinion, three indications to be pursued in treatment, none of them bad in principle, but some of them terrible in detail. The first intention is the generation of good blood, by attention to diet. The second is the correct-

ing of the atrabilious humours, by purging, venesection, or bloodletting. The third consists in preventing the growth of the tumour, and disposing it to discussion.

This last-named intention is to be done with care. Cancer is to be "moderately discussed." While the tumours are evacuating, mild "repellents" are to be applied, and afterwards "discutients." All the unguents prescribed ought to be beaten in a leaden mortar. "Lead beaten into thin laminæ is usually worn in these cases, so is gold after the same manner." "The oyl of frogs is commended in this case, and is made by baking them with butter in their mouths,"—evidently a sop for the frogs. "Frog-spawn water is of good use in the summer, if cloaths be dipped in it and applied; but they ought to be shifted as they dry, and fresh ones applied." In winter, lest the patient take cold from this elegant application, Mr. Wiseman recommends the following elaborate cerate:—"℞ Ranar virid. ʒiij., pulv. cancror flaviatil combust. ʒss., lithargri aur. ʒij., plumbi usti, tutiæ preparat. an. ʒij., cerussæ ʒvi., succor, solan. plantag. an. ʒvi., aceti ʒij., olei ranar et unguent popul. an. ʒiij., sevi vitul. ʒiv., ceræ q.s. fiat ceratum." The reader at this point is allowed five minutes to take his breath; we take ten.

Returning refreshed from our rest, and premising, from an idea that has occurred meantime, that Mr. Wiseman's prescription is devised on the principle that among so many good things one will surely do some good if another should not, we pass to the narration of the manner in which our Sergeant Surgeon removed cancer by operation.

That the operation might be done with success, Wiseman proposed the three following rules:—"First, that the patient be of a strong constitution, and of a tolerable good habit of body, and not in a declining age, when the menstrua are ceased; secondly, that the cancer be loose, and the axilla free from painful glands; it were to be wished, also, that the cancer took its original from some accident, as a bruise; thirdly, that the operation be performed in the spring or autumn of the year."

The mode of operation is significantly primitive. The operator is to have good rowlers, compresses, restrictive powders, and desentatives, as in other amputations. The use of chalcanthum, or other escharotics, Wiseman does not approve of, because they cannot be so applied to the mouths of arteries, but they will corrode the adjacent parts and cause pain, which ought not to be. To avoid these, he prefers "a small button cauterie," which is not done without some pain, but is momentary, and serves to correct the indisposition of the part. There ought to be actual cauteries of different sorts ready heated in some corner of the chamber, lest in the extirpation there happen to be left some reliques of the cancerous gland. All things being ready, the patient must be placed in a chair opposite to the light, and held steady. It is, then, at the operator's choice whether he will make a ligature about the basis of the cancerous tumour, or pull it to him with one hand, while he cuts it off with the other. "For the cutting into the breast and pulling out the cancerous knot rarely succeeds well;" nor, indeed, is every breast so capable of being freed of the cancer, when it is cut off by making a ligature. If the cancer be cut off clear, the business is next to stop the blood as you please; but, if any scirrhosity remain, you shall do well to consume it by the actual cautery. Dress with "pulv. galeni;" then place the patient in bed, and give an anodyne draught to quiet the ferment.

The second or third day after, you may dress her with some digestive; if there is pain, you may apply an anodyne. If there be no pain, dress with "empl. è bolo." After digestion, proceed with detergents, and incarn and cicatrize, remembering to keep the body soluble the while by clysters, and purge or bleed as you see occasion. And if there were no fontanels before, make them now; for though the cure may seem successful, yet if there be any evil quality in the humours remaining, the ulcer will scarce cicatrize.

If in the process of cicatrization the lips of the wound should grow callous, an attempt should be made to cradicate timely by the actual cautery, whilst the callosity is within a narrow compass, and lying in the superficies; for if it is deferred till it has seized the muscular flesh, it will be too late.

Wiseman, in this part of his instructions, attacks the empirics of his time, and speaks of a certain nostrum called "Mathew's pill," which seems to have been celebrated in its day as a quack specific. He objected generally to escharotic medicaments, but approved of the actual cautery, which should not be applied lightly upon the upper parts, but by thrusting it at "the root" with a scoop or chisel-like cautery, carrying it away direct. If there remain any "rags" in it, with a proportionate button cautery burn down to a "crust."

The practice of the cautery is illustrated by Wiseman in glowing terms, as may be supposed, considering the warmth of the subject. Some of his cases seem to have done well for a time. The coolness with which the operation was done is inimitable. A man, fifty years old, in whom cancer of the upper jaw has been excited by the cracking of an apricot stone, was operated on. While various implements for burning were being forged, chisels, bolts, and what not, the patient was let blood, purged, and "prepared for the work." When operation-time came, the instrument-maker was there to heat the cauteries, and mend or alter them, as occasion should offer. One of the assistants then held the head and upper lip of the patient, whilst Wiseman, depressing the tongue with a speculum oris with the one hand, passed with the other a plain chisel cautery just under the upper lip into the body of that part of the cancer which stretched itself along the roof of the mouth into the palate, and repeated the use of that fashioned cautery until he had made a separation of so much. The carrying of the cautery thus was the way to preserve the sound parts from being scorched with the reflection of the glowing iron. "*It was also a great encouragement to the patient to see gobbets burn off with so little pain.*" At last, after cutting and burning through the alveoli, "which were as rotten as dirt," the patient grew weary, and the Physician thought enough was done for that time. Next day, and some following days, this process was repeated, the Chirurgeon "drying and smoothing his work." At last a cure was effected in the space of six weeks, with a firm and smooth cicatrix. Incredulous Dr. Bate hereupon whispered to Sir Fra Prujean, "that it would not hold a month." "But it held seven years, or thereabouts," says Wiseman. Others who at the first consultation had declared it an incurable cancer, now declared amongst their companions that it was no cancer. In the year 1668, the disease broke out again in this man after fever. The throat was now attacked, and he languished and died.

In one of his operations on the breast, where that organ was sliced off by the knife, Wiseman tried an experiment with the "Royal Styptic Liquor" which was given him the morning before by His Majesty's special command. Two arteries bled forcibly out, till Dr. Needham applied a wet button on one, and Jacques Wiseman on the other. That of the Doctor's stopped the bleeding instantly, and the compress adhered to it; but blood dribbled from the other till the application of another button, when that also stopped. Afterwards, the patient having vomited, one of the arteries burst out bleeding again. A re-application of the styptic stopped it, but Wiseman was not quite happy; and it being night, gave the vessel an extra seal down with the point of his button cautery.

By whatever way he removed cancer, it was the point with him to operate while the disease was recent. In later stages he clung to palliative measures merely, and, although sometimes attempting even then the radical cure, always doing so, under such circumstances, either at the earnest request of the patients themselves, or by the authority of a consultation of eminent Physicians and Chirurgeons.

(To be continued.)

REVIEWS.

On the Constitutional Treatment of Female Diseases. By Edward Rigby, M.D. London. 8vo. Pp. 324.

A book emanating from a man of Dr. Rigby's reputation and experience will necessarily command attention, and his opinions will be listened to with respect. More than one previous publication of Dr. Rigby's has contributed to sound views and correct practice in Midwifery; and his "System of Midwifery," although published many years ago, contains certainly one of the best expositions in the English language of the Mechanism of Natural and Morbid Labour. Such being Dr. Rigby's precedents, he is evidently entitled to our respect and confidence when he enunciates opinions on other and scarcely less important obstetric matters.

The volume before us, Dr. Rigby assures us, is strictly

practical, and offered more especially to those who, being engaged in general practice, have not been able to devote their special attention to the class of affections of which it more especially treats. On some points of practice discussed in this volume Dr. Rigby has previously spoken through the medium of this Journal.

The first three chapters of the volume are devoted to the disorders of menstruation. These Dr. Rigby regards simply as the expression of a constitutional malady, and are to be treated accordingly. Practitioners will be somewhat surprised to see that Dr. Rigby regards *iodine* and secale cornutum as the two best emmenagogues, when such are needed. Iodine he recommends in the form of iodide of iron as the best combination for this purpose. Dr. Rigby may be right in attributing the benefit derived from iodide of iron in such cases to the iodine, but we are strongly inclined to suspect that it is really to the tonic effect of the iron we are to ascribe the service rendered; and we believe this has long been held by Dr. Christison and other Physicians. In speaking of the treatment of retained menstrual secretions necessitating operation, we observe that Dr. Rigby does not allude to the singular fatality which has followed operative interference in these cases. Notwithstanding the apparent simplicity of the proceeding, those who have watched cases where incision has been employed know that in most instances severe irritative fever follows, apparently from the absorption of the pent-up fluid; and that this very frequently proceeds to a fatal termination. If our memory serve us rightly, the late Dr. Ramsbotham had witnessed no less than five or six such fatal cases.

On the use of the microscope in the diagnosis of uterine and vaginal discharges, Dr. Rigby says, "Interesting as these minute and elaborate investigations undoubtedly are, I cannot help thinking that, when the results are confidently enumerated as the essential part of our knowledge on these subjects, to the almost entire exclusion of those general derangements on which they especially depend, they unavoidably tend, not only to narrow the views of the Practitioner, and to divert his attention from those morbid conditions of the system of which they are but the local effects and symptoms, but also to confine his treatment to those local means which have latterly been so much overrated and abused." (P. 93.)

Again, in the chapter on inflammation of the os and cervix uteri. "I can no more look upon inflammation of the os and cervix uteri as a primary disease, causing derangement of the general health, than I could on a gouty toe, a rheumatic knee-joint, or enlarged strumous gland. Most of these uterine affections are local manifestations of some general derangement, but which, in their turn, react as causes, producing their own set of symptoms and causes." (P. 109.) We give these extracts as being a fair index of the bias of the book before us with regard to the uterine controversy.

After the subjects last mentioned, three chapters follow on displacement of the uterus, and an interesting account of prolapsus vesicæ. This last affection is regarded by Dr. Rigby as of rare occurrence. Our own experience is somewhat opposed to this opinion; although it is by no means so frequent as prolapsus uteri, we have often met with it among the poorer classes of the community, and in several it has followed a natural though tedious labour. From circumstances in the history of these cases, we have believed it to be produced during labour, when the bladder has not been emptied at sufficiently short intervals, and in a tense condition has been pushed downwards by the pressure of the fœtal head; thus impeding labour, and injuring the contractile wall of the vagina.

The chapters on polypi and fibrous tumours are faithful expositions of our present knowledge on these subjects, and will well repay a perusal. Perhaps there is no one subject better treated than cancer of the uterus. Here many readers will learn for the first time that cephaloma is the most common form of cancer of the cervix uteri, while scirrhus is less frequent. This is the opinion of Rokitansky; and, in deference to that great Pathologist, Dr. Rigby adopts the assertion, but with considerable reservation. If this be true, we should wish to have found some hints for distinguishing the two forms in the early stages. The extreme hardness and slow process of development observed in most cases, seem opposed to such a view, which must however be left for future investigation to decide. In the constitutional treatment of cancer of the uterus, Dr. Rigby strongly recommends the use of small doses of arsenic, after Dr. Walshe's plan, which seems frequently to have the double effect of improving the general health and retarding the local disease. He is evidently not without hope that in some cases possessing all the characteristics of cancer, the evil may be averted, if the treatment be suitable and sufficiently early. We are glad indeed to possess any hope of benefit in these distressing cases, but the doubt necessarily arises, if in these cases the symptoms disappeared, were they not simply cases of inflammatory induration, with deranged general health simulating cancer? and the doubt becomes the stronger if we adopt Muller's definition of cancer, quoted by Dr. Rigby, as the best.

Cauliflower excrescence, corroding ulcer, pruritus pudendi, and vascular tumour of the urethra, are each treated separately, and the volume ends with three chapters on the diseases of the ovary. Ovarian tumours occupy an important place among these; and although the division on their diagnosis might we believe with advantage have been made more complete, the account of their pathology and treatment is one of the best which has come under our notice.

In the diagnosis, Dr. Rigby says that "the only diseases with which ovarian tumour is liable to be mistaken, are ascites and fibrous tumour." Here we would remind Dr. Rigby, that there are other, and as experience has proved, important sources of fallacy, produced by diseased conditions into which the Practitioner may fall. Dr. Rigby doubtless knows that the operation for ovariotomy has been begun, the abdomen being opened from the ensiform cartilage to the pubis, and yet no tumour or collection of fluid whatever has been found. Probably the mistake arose from that form of tympanitis which has been called "spurious pregnancy," and the diagnosis may appear obvious enough; but it has occurred in not inexperienced hands, and therefore remains as a lesson to future operators. Inflammatory pelvic tumours and accumulated fæces have on more than one occasion been mistaken for ovarian tumour, and should scarcely have been omitted in so important a work.

Again, at page 303, on the diagnosis of ovarian from fibrous tumour, it is stated that if, in the latter affection, the sound be introduced into the uterine cavity, it will pass to a considerable distance, showing that the elongated cavity extends into the mass. The fact is that, in a comparatively small number of cases only, of large fibrous tumours, is the uterine cavity elongated; for, if the tumour be developed only towards the peritoneal surface, there will be no elongation of the cavity whatever. To effect this elongation of the cavity, it seems necessary that the tumour should impinge on the mucous canal, which it elongates or bends in its further progress and enlargement.

In the treatment of ovarian dropsy, Dr. Rigby is by no means sanguine as to the results of tapping, even as a palliative measure, regarding it as "the beginning of the end," when it is had recourse to. Of the results of iodine injection, he abstains from offering an opinion. There are certainly some cases of single cystic formation, in which tapping alone is not curative; to these iodine injection seems particularly adapted; and it is evidently not so dangerous a measure as *à priori* reasoning leads one to suppose. The success of M. Boinet, in Paris, leads one to hope that, even in some of the multilocular cases, this mode of treatment may have curative results.

Our author has evidently a leaning towards the operation for ovariotomy in suitable cases; and fearful an operation as it may seem, the success of the operation in the hands of Dr. Clay, of Manchester, and, indeed, the average mortality of the whole number of cases on record, is not greater than in several other legitimate and common operations.

Dr. Rigby quotes from Dr. Clay, but has evidently not seen the latest results published in the *Edinburgh Journal* last year. Dr. Clay says, "I have just completed my 69th case, which is out of danger. Out of 69 cases, 48 have recovered and 21 died." The mortality here is considerably less than 1 in 3, and quite as small an average as the mortality after amputation of the thigh. The chances of success would evidently be greater if the operation were performed earlier than hitherto deemed expedient, when the patient has a sufficient store of strength to pass through such an ordeal.

In conclusion, we would recommend Dr. Rigby's book to our readers, as excellent in spirit, and eminently bearing out its professed practical character.

BOOK NEWS.

The third edition of Dr. Mackenzie's *Outlines of Ophthalmology* contains the excellent introductory discourse on the causes which have rendered the eye a separate object of medical study, a large portion of which we published in a recent number. The *Outlines* themselves are a sort of programme of a most complete Course of Lectures on the Eye and its Diseases, and will be found invaluable to students, to show them what they have to learn, and to lecturers, to remind them what they have to teach. — Mr. Savory has just completed the fifth edition of his well-known *Compendium of Domestic Medicine*. It is the best book of the kind in the language.—Mr. Snape has published *A Letter to the Committee of Visitors of the Surrey Lunatic Asylum*, in which he enters into a full explanation of the circumstances in reference to the case of Daniel Dolley, who died in the Asylum, and whose death has given occasion to so much injury and pecuniary loss to Mr. Snape. It is stated in this letter that the treatment of insanity by the shower-bath and by tartar emetic has been attended in many cases with great success, and the death of the man Dolley is attributed to fatty degeneration of the heart. The injustice of the Lunacy Commissioners in receiving secret and anonymous evidence is very properly exposed, and the conduct of Dr. Diamond, the colleague of Mr. Snape at the Surrey Asylum, is rather severely criticised. This letter ought to be read by all who wish to hear Mr. Snape's defence to the charges lately made against him.—Dr. Alfred Taylor has presented in a separate form his article on *Poisoning by Strychnia*, which appeared in the last number of the Guy's Hospital Reports, and which we have already noticed in this journal. In its present shape, Dr. Taylor's version of the late Palmer trial is an important contribution to forensic medicine and toxicology.—In the second edition of Mr. Piesse's *Art of Perfumery* those interested in these matters will find a variety of useful receipts for the preparation of perfumes, medicated soap, pomades and oils, hair dyes, depilatories, tooth-powders, and mouth washes.—Mr. Lizars's *Supplement* to his *Anatomical Plates* disappoints us on the whole. There is a want of freedom of drawing throughout, and the general effect is stiff and formal. In some of the plates the details are accurate, but in others the appearances are very different from anything we ever saw in the dissecting room. — *Matter, its Forms and Governing Laws*, is the title of a little book which will be found very useful to those who have neglected the study of Natural Science and wish to begin it.

GENERAL CORRESPONDENCE.

DR. BRINTON AND DR. LEES.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have no wish to add one word to your remarks of last week respecting Dr. Lees and myself. You have now laid before your readers two sets of parallel passages; and it remains for them to decide whether, in either or both of these, the resemblance may be referred to a casual use of similar language in describing similar facts, or whether that resemblance is sufficiently close and extensive to imply a transcript, such as no man of sense could misinterpret, and no man of honour could justify.

One remark in Dr. Lees's letter, however, I feel bound to notice, since my answer to it will also explain my conduct in reference to other authorities on the Gastric Ulcer. He complains that, while I claim to have made a toilsome search through the literature of the subject, I have left unnoticed his contributions to it.

My defence is simple. I have not acknowledged them, because I owe nothing to them—probably never read them.

It was my object to make my Essay a study from nature; and, in introducing it, I explicitly stated my materials to consist of cases either reported by others or observed by myself. The numbers of these cases made it impossible for me to quote their sources, save where many were derived from a single observer. The same reason obliged me to lay aside a project I had entertained of publishing a detailed table of cases, like one I some years ago contributed to the "Transactions of the Pathological Society" (On Intra-cranial Aneurisms, vol. iii. p. 47). And in conducting my inquiry, I soon fell into a practice of eliminating from it all but the precise materials I was in quest of; so that, for example, in glancing over a memoir or lecture on the subject, nothing arrested me save the well-known *indicia* of a narrative or report.

I think many of your readers will so far appreciate the accuracy of this statement as to see that it expresses the only way in which research of this kind can possibly be rendered compatible with the absorbing duties of active professional life; and I could pledge myself, if necessary, to collect, from the records thus brought together, every detail stated in my Essay, and to substantiate, from independent sources, every word which my own general descriptions may seem to have borrowed from Dr. Lees, or any other author.

Nothing is further from my intention than to disparage the description of other and earlier writers. I chose an independent (and, as I thought, undervalued) mode of research, such as enabled me to dispense with them; but only by an amount of labour far exceeding that which would have been requisite merely to verify and adopt them; and I gladly seize this opportunity of pointing out that, in pursuance of this plan (which, by confirming such descriptions, does more to accord it them than the most servile imitation), I did not spare my own feelings, where impartiality demanded their sacrifice. So far as I can recollect, my Essay nowhere alludes to the honoured name of my teacher and former colleague, Dr. Budd, who has not only done more than any one in this country to call due attention to this disease (as shown by his admirable treatise on the Diseases of the Stomach, reprinted from your columns); but who has long had the strongest personal claims on my gratitude and esteem.

I will only add to these (unavoidably egotistic) remarks, that I am sure I shall ultimately be acquitted of all wish to injure other authors, either by plagiarism, by detraction, or by silence. I should be glad, indeed, to believe that the standard of conventional morality in this respect was a higher one than that which I endeavour to keep before me. Even in this very Essay, I think that my citations, if examined by the above light, will be found as just as any reasonable amount of care could have made them; and with what accuracy I should like to fulfil this important duty of authorship may, I think, be inferred from some of my earlier writings; for example, from my Essay on the Stomach ("Cyclopædia of Anatomy," Supplement) where (page 328) I can point to a single foot-note, which (if I recollect right) cost me weeks of continuous research. I am, &c.

Brook-street, Grosvenor-square, December 8, 1856. William Brinton.

ALLEGED MORTALITY FROM CHLOROFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—I quite coincide in Dr. Arnott's wish that the correspondence between us on the subject of chloroform may cease. My object in the present discussion was to draw the attention of your readers to some of the weak points of Dr. Arnott's theory; and so to prevent its exercising an influence on Surgical practice which would not fail, in my opinion, to be injurious. I had no hope of convincing Dr. Arnott, who had evidently (though doubtless unconsciously to himself,) started from a foregone conclusion. Before closing the correspondence, however, I must be allowed, in a very few words, to protest against some of the unfair assumptions to which Dr. Arnott's logical difficulties have driven him in his last letter.

He assumes that the mortality "has been increased only after the severe operations." I have endeavoured to convince him that pyæmia has been prevalent not only after severe operations, but after trifling operations, after other minor injuries, sores, etc., and even as an idiopathic disease. He does not seem to be aware of the nature of his own charge against modern Surgeons. It is, that a course of treatment introduced by them has more than doubled the mortality after lithotomy and other operations. Surely then they have been guilty of rashness in persisting in it for nine years. To compare this with an imaginary accusation against Mr. Bellingham's or Mr. Syme's contemporaries for not anticipating those gentlemen's inventions is puerile. When Dr. Arnott says that he has enumerated the symptoms or effects produced by chloroform, it is difficult to believe that he refers to his present paper, in which nothing of the sort is attempted; and as to explaining

its mode of action, he has merely asserted that this is analogous to that of bleeding, an assertion very improbable *à priori*, quite unsupported by proof, and which would still leave it altogether unexplained how either predisposed to pyæmia. With reference to the lithotomy question, if Dr. Arnott had been able to answer the plain question which I put, from the ascertained practice of modern Surgeons, he would have seen that I had not shifted my ground; and if he had had sufficient interest in the matter to have procured the details of the few cases he cited, which are, I believe, perfectly accessible, he would, I am convinced, have seen that no chloroform theory was necessary to establish a "*vera causa.*"

I leave the question between us with confidence to the decision of your readers, satisfied that they will require different facts and reasonings from those adduced by Dr. Arnott, before consenting to give up the most brilliant discovery of Modern Medical Science. I am, &c. T. Holmes.

4, Vigo-street, December 8, 1856.

ROYAL MEDICAL BENEVOLENT COLLEGE —INCREASED CHARGE FOR EXHIBITIONERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—As it has been ascertained that the next meeting of the Council of the Royal Medical Benevolent College will no be held until Wednesday, the 7th of January, may I reques you will be kind enough to give space for this letter in your Journal, as it will much assist the cause. The memorial requesting the Council to convene an Extraordinary General Meeting will be presented on that day. A deputation will attend for that purpose, and also to hold a conference with the Council as to the best course to be pursued in order to bring the matter at issue, if possible, to an amicable termination. It is hoped that the deputation will succeed in obtaining such a statement of accounts, and of the calculations on which the supposed necessity for the increased charge is based, as will enable all parties to form an impartial judgment upon the question. The 117 signatures I enclose have already been appended to the memorial. I am, &c.

Wm. Frank Wagstaffe (Pro Committee).

Walcot-place West, Kennington,
10th December, 1856.

ON THE DIAGNOSIS OF PRIMARY SYPHILIS REQUIRING MERCURIAL TREATMENT.

[To the Editor of the Medical Times and Gazette.]

Sir,—The last number of the *Medical Times and Gazette* contains a letter from Mr. Stapleton of Dublin, in which he offers some comments upon an article of mine in the October number of the *British and Foreign Quarterly Review*. Mr. Stapleton complains that the *facts* which he has enunciated have not been fairly represented in the article in question. The quotations therein contained as illustrating Mr. Langston Parker's *opinions* (and to these only my observations refer) are, however, correctly given; and if Mr. Stapleton's meaning is not clear, the fault does not rest with me.

At page 15 of Mr. Langston Parker's work on syphilitic diseases, he says there are several circumstances which particularly indicate the use of mercury in primary syphilis; and under the fourth head, Mr. Parker includes all primary sores which have yielded a characteristic pustule by inoculation. "The indication," he says, "for the employment of mercury is still more pressing if the primary sore be accompanied by bubo."

By the unqualified term "bubo" I understand "a swelling in the lymphatic glands from acute or chronic inflammation." Mr. Stapleton says that Mr. Langston Parker here means, "multiple indolent bubo, consequent upon indurated chancre." If this should prove to be the case, it is very desirable that those who read Mr. Parker's widely circulated, and in many respects very valuable work, should be made acquainted with the true meaning of the word; for I have good reason to know that both surgeons and pupils are often in the habit of prescribing mercury for primary syphilitic affections, accompanied by inflammatory bubo, and believe that by so doing they are following Mr. Langston Parker's injunctions.

My answer to Mr. Stapleton, however, is that what he represents as Mr. Parker's meaning appears, upon the face of it, simply not to be the fact. Let us hear the description of a bubo treated by mercury, at p. 68 of Mr. Parker's work on the "Treatment of Syphilis." After a trifling primary affection, in this case, it appeared probable that the bubo would suppurate. The "glands were as large as a turkey's egg, red at the summit, exceedingly painful and tender, and from a feeling of fluctuation given to the finger, it approved, probably, that matter had already formed." Mr. Parker recommended that this patient should use the mercurial baths every other day, and rub in every night half a scruple of mercury. Does this description in any way accord with the multiple indolent bubo mentioned by Mr. Stapleton?

Again, in all three editions of Mr. Langston Parker's work, he states that it is of great importance that a bubo should not be allowed to suppurate; and that, "unless especially contra-indicated, mercury may be employed to assist the resolution of the tumour." In the face of such assertions as these, upon what authority, I would ask, does Mr. Stapleton say that by the term "bubo," Mr. Langston Parker means "the multiple indolent bubo consequent upon indurated chancre"? The importance of the subject alone leads me to repeat, in opposition (as it appears to me) to the deservedly high authority of Mr. Parker, that neither the production of a characteristic pustule by inoculation, nor the existence of bubo, is a valid reason for the administration of a mercurial course in primary syphilis.

Some expressions are used by Mr. Stapleton little adapted for scientific inquiry. It must always be regretted that such should be introduced into Professional discussions, and I must be excused if I refrain from further noticing them. I have, therefore, confined my observations to the points of scientific interest referred to in Mr. Stapleton's letter, and these have now, I believe, been fully answered.

I am, &c. Henry Lee.

13, Dover-street, Piccadilly, Dec. 8, 1856.

THORACIC ANEURISM AND TUBERCLE.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a paper on thoracic aneurism, lately published in the *Medical Times and Gazette*, by Dr. Fuller, I find the following words: "This symptom," alluding to feeble respiration, "may of course be complicated by the presence of tubercular disease of the lung, *but the co-existence of such diseases with aneurism is rare.*"

In the able work of Dr. Stokes, "On the Diseases of the Heart and Aorta," I find the following words (page 578): "*The morbid condition which most often accompanies ancurism, (thoracic) is that of tubercle.*" He embodies this opinion, moreover, in his 38th proposition. Thus: "*That of the general morbid conditions which accompany aneurism, tubercular phthisis is most common.*"

Being somewhat interested on this point, I should wish to know which of these opinionsto adopt. I am, &c.

Stanhope T. Speer.

Eton House, Cheltenham, December 5, 1856.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

December 2, 1856.

Mr. Arnott, President, in the chair.

After some preliminary business,

Mr. Hutchinson gave, on behalf of Dr. Wilkes and himself, a report of their examination of Dr. Gibbs's specimen of

CANCEROUS SUPRA-RENAL CAPSULE.

The mass submitted to them for examination was about the size of an egg, and consisted throughout of very vascular medullary cancer, in various stages of growth and degeneration. Under the microscope, cells of most characteristic features were abundant. No portion of healthy supra-renal gland could be found in the mass. The tuberous mass in the liver was also of similar character.

Dr. Gibbs stated that he had, since showing the specimen, himself examined the lumbar glands of the same case, and had found them to be cancerous. He adverted to the fact

that one of the supra-renal bodies was healthy, and added that patches of brownish discoloration of the skin had been observed on the body.

Dr. Risdon Bennett showed a specimen of

LOCAL FIBROID DEGENERATION OF THE SUBSTANCE OF THE HEART.

It had been removed from the body of an adult man, who had died suddenly during the course of phthisis. The organ presented a remarkable similarity to one shown at the last session by Dr. Bence Jones, and one still earlier, he believed the first recorded example of it, by himself (Dr. Bennett). There were large portions of the muscular substance, converted into a pale greyish white fibroid structure. Over these the endo- and pericardial membranes were opaque, and resembling the state so well known as "white patches." From these, however, they differed, in that the membrane was perfectly smooth and glistening, the appearance being that of the changed muscular tissue seen through. Whether the change was deemed to be one consequent on inflammation or not might be thought doubtful, but the circumstance that extensive pericardial adhesions existed was somewhat in favour of such a view.

Mr. Birkett showed a specimen and drawing from a case of

ULCERATED MAMMARY GLANDULAR TUMOUR.

The case was mainly of interest on account of the close resemblance which its external features bore to cancer. The drawing (size of life) showed the bust of a woman emaciated to the last degree, from whose right breast grew a large ulcerated and fungating mass, covered with discharge, and having here and there patches of slough. In the skin above the growth were numerous enlarged veins. Mr. Birkett stated that the woman had been sent to him as a case of cancer, and he had seldom seen a more marked example of cachexia. The growth had existed two years, the woman's age being 36. She had suckled several children, and had suffered from milk abscesses in the breast, but careful inquiry seemed to show that the growth had not had any connexion with the latter. Its excision had been a matter of great ease, as the tumour was somewhat pedunculated. Part of the breast itself was removed with it, the union being inseparable. It was an example of mammary glandular or adenoid tumour, which had ulcerated through its capsule and the superjacent skin. Mr. Birkett added that such cases as this, the true nature of which had only recently been understood, no doubt had furnished the cases in which, by the older Surgeons, true cancers were said to have never returned after operation.

Mr. Busk showed a specimen of

ENCHONDROMATOUS GROWTH FROM THE FEMUR.

It had been removed by amputation of the thigh of a gentleman, aged 27. At the age of 13 he had been thrown down in a scuffle, and a year or two after a painless tumour was observed to be growing in connexion with the outer condyle of the femur. It grew slowly, and passing behind the bone developed on its inner aspect also. Of later years, its increase had been more rapid, and its size had become inconvenient. The preparation, which was handed round the meeting, showed a white cartilaginous tumour, at least the size of an adult head, but flattened, and on its surface extremely irregular, with small nodosities. In structure, the growth on section showed differences, the greater part being ossifying enchondroma, but a portion which had recently grown quickly being of cystic character. In the former were all varieties of cartilage cells, and in the latter the cells were elongated and fusiform. Mr. Busk did not think that any part was cancerous, but was more doubtful of the cystic parts. The cartilaginous parts showed, as such usually do at a little distance from the surface, parts in which the structure was soft and almost pulpy. These parts, the exhibitor observed, had usually been deemed to be spots in which degeneration and softening of the cartilage was in progress; but there were certain circumstances which had led him to suspect that a contrary explanation ought to be offered, and that they were, in reality, parts in which development and consolidation was incomplete. His reason for this view was that, on careful microscopic examination, the cells seemed to advance in perfectness, in respect to nuclei, etc., from the softest to the harder parts; and that, in the former, there were no evidences of their being fatty or degenerate.

Dr. Van der Byl exhibited some specimens from a case of

INTESTINAL OBSTRUCTION PRODUCED BY A GALL-STONE.

These specimens were taken from a woman, aged 46, who, after frequent attacks of vomiting, which lasted for a period of twelve days, was admitted into the Middlesex Hospital, complaining of great pain in the abdomen, and distressing nausea. Her countenance was anxious and pinched; her tongue dry, and pulse small. A copious injection was returned in the course of half-an-hour, without any feculent matter. The abdomen became distended and tympanitic; stercoraceous vomiting took place, symptoms of peritonitis supervened, and the patient died rather suddenly two days after admission. On examination a biliary calculus, about the size and shape of a cork (but rather shorter), was found to block up the small intestine about the middle of the ileum, where it fitted like a plug. At the point of obstruction the gut was bent upon itself, the adjacent peritoneal surfaces being slightly adherent by recent lymph. The intestine seems to become suddenly smaller immediately below the obstruction, but above this point it was greatly distended, and filled with dark-greenish, feculent matter, in which were found ten smaller angular biliary calculi, about half the size of hazel-nuts. This portion of intestine was dark red. The mucous membrane was much congested, in some parts covered by adherent lymph, and a number of small, roundish ulcers were scattered over the surface. On examining the liver, the gall-bladder was found firmly adherent to the duodenum, at the point where it turns downwards to become perpendicular; and a well-defined communication existed between these two parts. The gall-bladder is now contracted, and converted into a small fibrous pouch; but there can be no doubt that the calculi passed through this perforation, although the opening is now much smaller than the calculus causing the obstruction. The liver appeared tolerably healthy, though rather dark-coloured. The peritoneum was covered in many places by adherent lymph, which glued the intestine together. Below the obstruction the gut was quite empty and pale.

HARVEIAN SOCIETY.

November 20.

Dr. Ramsbotham, President, in the chair.

Dr. Marshall Hall read a paper on

THE ASPHYXIA OF STILL-BORN INFANTS, AND ITS TREATMENT.

He said—The newly-born infant and the newly-born of many of the mammalia are in a peculiar condition, both in an anatomical and physiological point of view. The foramen ovale, and the ductus arteriosus, being still open, the blood of the pulmonary circulation is still diverted from the channels it is destined to pursue, and in this respect it resembles the reptile tribes. Respiration, and every stimulus, except temperature, being absent, the excitability of the spinal system, and the irritability of the muscular system, exist in their highest condition, according to a law of animal life which I announced some years ago—viz., that these faculties are, throughout the animal kingdom, inversely as the stimuli. The new-born fœtus is, therefore, a creature of high excitability and irritability. But such an animal bears the absence of stimuli precisely in the same ratio. Respiration is the chief of these stimuli; therefore, to arrive at the subject of this paper, the new-born fœtus can long survive the absence of respiration. The condition of apnœa and of asphyxia, without the absolute loss of life, is therefore of long duration, and the hope of restoring the still-born infant is long protracted; so must, therefore, our efforts at resuscitation be.

These efforts consist—

1st, In measures to induce efficient respiration; and

2ndly, In measures to maintain the circulation.

In order that respiration may be effected, we must adopt the following means:—

1. The infant must be placed in the prone position, in order that all fluids, which might obstruct the entrance into the windpipe, may flow away.

2. Nature's mode of operation being to impress the trifacial and cutaneous nerves, the external excitors of respiration, by

the external cold, we must dash a few drops of cold water on the face and the general surface.

3. We must proceed, having failed to excite respiration, to imitate the respiratory movements:

This must not be done by any forcing means; even the human breath, forced into the infant's lips, may tear the delicate tissue of the fœtal lungs. We must, on the contrary, adopt some measure of drawing the air into the lungs. This is effectually accomplished by first placing the little patient briskly in the prone position, to clear the fauces; then pressing gently on the back; and then removing that pressure, and turning it gently on the side and a little beyond.

4. Meantime, the limbs are to be rubbed, with gentle pressure, upwards, to promote the circulation, by propelling the venous blood towards the heart.

5. At proper intervals, we must again endeavour to excite the respiration physiologically.

The infant is to be placed with the face prone, and douched alternately and rapidly with water of the temperatures of 60° and 100° Fahr. High and low temperatures are equally excitants of the reflex function of respiration, and their power, within physiological limits, is in proportion to the difference of those temperatures. We must remember that the newly-born infant is a creature of high irritability and low stimulus, and that the foramen ovale and ductus arteriosus are open—both events greatly calculated to protract life and hope in the case of apnœa; and we must long, very long persevere in our efforts to save the still-born. The still-born infant has been restored after it has been neglected for hours. There is a remaining consideration. The effect of apnœa is a condition of the blood surcharged with, and poisoned by, carbonic acid: from this condition of the blood a secondary asphyxia and convulsions are apt to occur in the adult. I do not know whether this be the case with the newly-born infant; I trust our worthy President will enlighten us on this and other points in regard to the subject of this paper.

The remedy and preventive of such secondary asphyxia would be, free exposure to the breeze, with the inhalation of very dilute pure ammonia.

The treatment of the still-born infant may finally be thus briefly resumed in the form of Rules.

1. Place the fœtus on the face.
2. Sprinkle the general surface briskly with cold water.
3. Make gentle pressure on the back; remove it, and turn the infant on the side; and again place it prone with pressure.
4. Rub the limbs, with gentle pressure, upwards.
5. Repeat the sprinkling only now, with cold and hot water (of the temperatures of 60° and 100° Fahr.) alternately.
6. Continue these measures, or renew them, from time to time, even for hours. The embers of life may not be entirely extinct!

A discussion followed, in which the PRESIDENT said, that as he had been so pointedly alluded to by the distinguished author, he would enter at some length into the question before the Society. He then reviewed the various opinions which had been entertained by many ancient and modern physiologists, as to the cause of the first inspiration, considering that this should be correctly understood before any means could be had recourse to scientifically for the purpose of restoring suspended animation in newly-born infants. After showing that the explanations he reviewed were all untenable, he said: "I have for a great many years endeavoured to explain the primary effort at respiration upon the principle, which is now, indeed, very generally admitted by physiologists, of nervous excitability. Dissection teaches us that the cutaneous nerves communicate most freely with each other, and that a large extent of skin is supplied from the same source as the diaphragm. The phrenic nerve is derived from the second, third, and fourth cervical; and large branches from both the second and third supply the back part of the head, the jaw, neck, shoulders, arm, and the upper part of the back and chest. Thus, then, the diaphragm, and the integuments of the upper part of the body, are connected together by the direct sympathy of nervous communication; and any stimulation applied to the extremities of one set of branches supplying the skin, would be propagated to the other extremities of the same nerve ramifying on the diaphragm. Contraction of the diaphragm would result. By that contraction its previous convexity towards the thorax would be destroyed; it would be drawn into the form of an inclined plane; by its decent it would enlarge the cavity of the chest, and thus give an opportunity for the air to rush into the lungs." He then adverted to the beautiful system of the nervous circle subservient to respiration, as laid down by Sir Charles Bell in his work on the nervous system; and stated that Sir Charles corroborated the opinion above given; and had, indeed, proved its accuracy to demonstration, by his discoveries. He has shown that the "internal respiratory" [the phrenic], and the "external respiratory" [the cutaneous branches of the same nerve], are identical at their origin; and that while the "internal respiratory" supplies the diaphragm, the "external respiratory" is expended on the serratus magnus articus, and skin in the neighbourhood; that the other nerves belonging to the same circle ramify over the nostrils, lips, skin, and muscles of the face, root of the tongue, pharynx, and portions of the larynx as well as on the muscles and integuments of the neck. Thus, the same stimulation which would cause the diaphragm to descend, would occasion the upper parietes of the chest to rise; and this would add to the volume of the thoracic cavity. He remarked that these facts would teach us to apply any stimulating means to the upper part of the child's person. The ordinary stimulus of the external air (and that it does produce a stimulating effect, the sharp pain experienced when the dressings are removed from an irritable ulcer plainly indicate) is generally all-sufficient to cause the diaphragm to descend and the serratus anticus to rise; but sometimes stronger stimuli, such as the external use of spirit, is required for the same purpose. The learned author in the paper would lead us to believe that he considered the trifacial nerves to be those which are chiefly impressed; and in this opinion Dr. Carpenter coincides. "That the nerves of the face may have a part in this great work may be perfectly true," said Dr. Ramsbotham; "but that they are not the sole, if the chief agents, I have had many opportunities of satisfying myself; for in cases of breech and footling presentations, or in those that have been made footling by the operation of 'turning' where there has been difficulty in extricating the head from the vagina, I have very many times remarked the child attempt to breathe while the head was still completely within the pelvis, when no external air could have been admitted to it, and when it could not have inspired anything beyond the vaginal mucus; but in these cases the chest and arms were fully exposed. This attempt is evidenced by a convulsive action of the diaphragm and abdominal muscles, quite perceptible to the operator by his hand; and always indicates that its life is endangered; for so long as the circulation is continued with any vigour through the funis umbilicalis, this effort is not made, respiration not being then required. The suspension of vitality in newly-born infants is chiefly dependent on three causes, either hæmorrhage which the mother has suffered, or pressure on the brain during its passage through the pelvis, or pressure on the funis prolapsed, or on the fœtal vessels either in the cord or placenta, owing to long-continued compression between the uterine parietes and the child's body; but whatever be the cause, the same means for resuscitation is applicable to them all. If the vessels of the funis are beating after the body is entirely in the world, it is better to delay for a period dividing the cord, provided there be reason to believe that the placenta is not yet dislodged from its uterine attachment; at the same time the child's person may be briskly shaken as it lies on the bed, or two or three smart taps may be made by the hand on its buttocks, chest, or back. This state is especially observed when the head has suffered unusual compression, either in extent or continuance during its birth, when the child is born in a semi-comatose state; this rough handling then rouses the nervous system up to the point necessary for its impressibility by the atmospheric air. If there be no discoverable pulsation in the cord, it should be tied and cut as quickly as possible, that more decisive measures may be taken to restore the ebbing vitality. First the person may be subjected to a little rough usage; then immersed for two or three minutes in a warm bath at the temperature of 96° or 98°. Should no attempt at respiration occur while in the bath, it should be taken out, and successively exposed to the air, then to the warm water, for about fifteen seconds at a time alternately. It is dangerous to keep the child in warm water for any length of time together, if it does not breathe, because Sir A. Carlisle, Haighton, and Dr. W. F. Edwards, of Paris, have proved that animals will drown much more quickly in hot than in cold water. While in the bath a drop or two of spirit may be let fall from the tip of our finger on the root of the

tongue, or some spirit may be thrown on the chest and submersion again performed, and this may be repeated two or three times; but if none of these means are efficacious, artificial inspiration must be had recourse to; this should not be delayed more than three or four minutes after the birth. A warm flannel must be laid upon a table, the child placed on it, its surface hastily dried, its body well wrapped up in the flannel, and we must expire from our own lungs into the child's mouth. For the sake of cleanliness, it is as well to put a piece of flannel between our lips and the infant's, and the belly-band being always at hand will answer the purpose well enough. While artificial inspiration is thus being made, the nostrils must be squeezed together by the finger and thumb, the mouth and fingers must then be removed, and the chest compressed by the hand; this alternate action must be continued so long as there is the least tremulous pulsation in the heart, until the child makes a voluntary gasp; this will mostly be the prelude to more perfect respiration. A newborn infant is exceedingly tenacious of life; and we should not be doing our duty if we relaxed our efforts until the heart became perfectly still. Some Practitioners recommend the use of a tracheal pipe; the only objection to which is the difficulty of introduction, and its being so much more likely to pass into the œsophagus than the trachea. When the mouth alone is used, some air will certainly pass into the stomach, and perhaps the intestines, as well as the lungs, and the abdomen will become tumid, but not sufficiently so to interfere with the diaphragm's descent." Dr. Ramsbotham had no fear of rupturing the air cells, as the learned author of the paper had. If indeed, as Dr. Snow advises, Read's double action syringe be used, force enough might be employed to damage this fine gossamer texture; but that is not likely to occur if we breathe into the child's mouth. He stated that he had restored multitudes of children by the process he recommends; and would not rely on compressing the chest externally alone, and depending on the resiliency of the ribs. Nor did he agree with the plan of putting the child on its abdomen, to let the fluids it might have inhaled run out of its mouth. The mucus is too tenacious, if any be there, to be got rid of in this way; and is required to be wiped out by the little finger.

UNIVERSITY OF LONDON.

M.B.—SECOND EXAMINATION.—1856.

PASS EXAMINATION.

Monday, November 3.—*Morning*, 10 *to* 1.

PHYSIOLOGY.

Examiner, Professor Huxley.

1. Give an account of the red corpuscles of the blood,—describing their figure, size, structure, and chemical nature, with the chief differences they present in different vertebrated animals; state also what is the average proportion of red corpuscles in human blood, and what variations are observed according to age, sex, and other circumstances.

2. Describe the secreting structure of the liver; give an account of the composition and uses of the bile; and state what is known of the changes produced in the composition of the blood, during its passage through the portal circulation.

3. In what manner and degree does the velocity of the blood's motion differ in different parts of the sanguiferous system; and to what causes are these differences to be ascribed? State what you conceive to be the forces by which the impulsive power of the heart is assisted, modified, or resisted, in the several parts of the vascular system.

4. Describe the mode of origin, growth, and eruption of the temporary and permanent teeth in the human subject; and state the principal differences in their mode of development presented by the lower animals.

5. Describe the origin and development of the Allantois; state what is its office in the embryonic development of the bird; and explain the part which it takes in the formation of the placenta in the mammal.

6. Describe the structure of the medulla oblongata, its connexion with other parts of the encephalon and with the spinal cord, and the mode of origin of the several nerves attached to it; and state what is the present state of our knowledge of the functions of its several constituent parts.

Monday, November 3.—*Afternoon*, 3 *to* 6.

GENERAL PATHOLOGY—GENERAL THERAPEUTICS—HYGIENE.

Examiners, Dr. Billing and Dr. Tweedie.

1. Describe the anatomical characters of inflammation as they are observed in serous membranes, including a sketch of the results.

2. Detail the general principles to be kept in view in the treatment of hæmorrhage.

3. Describe the special effects arising from exposure to the emanations of a marshy district. Supposing a prolonged residence inevitable, what prophylactic measures should be adopted?

Tuesday, November 4.—*Morning*, 10 *to* 1.

SURGERY.

Examiners, Sir Stephen Hammick and Mr. Fergusson.

1. Describe the different kinds of wounds which are most commonly met with from attempts having been made by persons intending to destroy themselves, on any of the parts situated between the lower jaw and the sternum. Give the treatment, both locally and generally, to be adopted, either immediately on the injury being inflicted, or subsequently through the different stages.

2. What are the symptoms denoting an inflammation of the membranes of the brain (meningitis), either arising from a slight or a severe blow on the head, whether it be attended or not with a wound, a puffy tumour of the scalp, or any other appearance of mischief to the soft covering of the skull? Describe the earliest and latest periods at which an inflammation of the membranes may come on, whether it be developed in a decided, or creep on in an insidious, manner; give the symptoms and treatment of each variety respectively, up to a favourable or fatal termination.

3. State the difference between a carbuncle, a boil, and any other phlegmonous swelling; give the symptoms and appearance by which you can discover their nature and classification. State the age, constitution, mode of life, atmospheric influence, or any other causes which are favourable to their production. Describe the treatment, both locally and constitutionally, of each variety, whether they come on in a mild or threatening form.

Tuesday, November 4.—*Afternoon*, 3 *to* 6.

MEDICINE.

Examiners, Dr. Billing and Dr. Tweedie.

1. Describe the diagnostic symptoms, forms, pathological causes, and treatment of tetanus.

2. Explain the nature of empyema and hydrothorax, respectively, their pathological causes, and treatment.

3. Sketch the treatment of diabetes, stating the grounds on which different modes have been proposed.

4. Describe the anatomical characters, diagnostic signs, and causes of pulmonary gangrene.

5. Sketch the symptoms, causes, and treatment of pyrosis.

6. Give the symptoms, forms, and treatment of purpura.

Wednesday, November 5.—*Morning*, 10 *to* 1.

MIDWIFERY.

Examiner, Dr. Rigby.

1. Describe the diagnosis, causes and treatment of spurious pains.

2. What are the indications for applying the forceps?

3. In a patient prone to severe hæmorrhage after the birth of the child, what prophylactic measures would you adopt?

4. Enumerate the causes, and describe the treatment of puerperal convulsions.

Wednesday, November 5.—*Afternoon*, 3 *to* 6.

FORENSIC MEDICINE.

Examiners, Prof. Brande, Dr. Owen Rees, and Dr. Rigby.

1. Describe the tests and characters by which you would distinguish Morphia, Strychnia, Brucia, and Narcotine, from each other.

2. How would you determine by post-mortem examination which of the three under-mentioned causes had produced perforation of the stomach:—

α. Corrosive poisoning.

β. Ulcerative disease.

γ. Spontaneous or gelatinizing perforation?

Describe in full the appearances presented in each case.

3. An unmarried woman with abdominal enlargement has been wrongfully accused of being pregnant: enumerate the

various conditions which produce abdominal enlargement, and give the diagnosis of them.

4. A woman in her first pregnancy after marriage, is accused of having been pregnant before marriage; how will you prove or disprove this charge?

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 4, 1856:—

BLAKE, JAMES GIBBS, Taunton, Somerset.
DEARDEN, JAMES, Church, Lancashire.
KENNARD, THOMAS ATHERTON, Lambourn, Berkshire, and
NOBLE, HUGH, Barnard Castle.

DEATHS.

AITKEN.—Dec. 4, at Rectory Villas, West Hackney, David Maxwell Aitken, Esq., M.D., of Courtenay-terrace, Kingsland. M.R.C.S.E., 1842; L.S.A., 1843; M.D. Göttingen (by residence examination); late President Assistant Obstetric Surgeon at the Imperial Hospital, Vienna.

GRAY.—December 1, at South Berwick, Maine, U.S., Joseph Bowers Gray, A.M., M.D., Principal of Berwick College, formerly of Chelmsford, Essex, aged 38.

LANGSTAFF.—Dec. 6, in his 79th year, at Cambridge-square, Hyde Park, Joseph Langstaff, Esq., Surgeon, formerly President of the Medical Board of Calcutta. He spent forty years of his life in India, a respected and valued member of the Hon. East India Company's service, and lived to pass his declining years in the quiet of the domestic circle. F.R.C.S.E., 1843; M.R.C.S.E., 1800.

THURSFIELD.—December 8, after a short but severe illness, Thomas Thursfield, Esq., Surgeon, of Kidderminster, aged 51, M.R.C.S.E. and L.S.A. 1828; Surgeon to Kidderminster Infirmary, and Lying-in Charity; Medical Officer to the Union Workhouse and No 1 District.

UNIVERSITY OF CAMBRIDGE.—At a Congregation held Dec. 10, the Degree of M.B., was conferred on Mr. Charles Penfold Ingram, of Trinity College.

UNIVERSITY COLLEGE, LONDON.—The Longridge Prize of £40 for General Proficiency in Medicine and Surgery was awarded by the Council, on Saturday last, to Mr. James Gibbs Blake, of Taunton, Somersetshire. Mr. George Carey Foster was appointed *pro tem.* substitute for Professor Williamson, for the continuation of his course of lectures on chemistry until Christmas.

KING'S COLLEGE.—The Chair of Materia Medica and Therapeutics in this Institution is now vacant.

ANOTHER MEDICAL MAYOR.—Dr. John Coghlan has been elected Mayor of Wexford.

PRINCELY GIFTS TO MEDICAL CHARITIES.—Sir Hugh Hoare, of Lillingstone Lovell, last week transmitted a check for £1000 to the Treasurer of the Bucks Infirmary, at Aylesbury. The worthy Baronet some time since also distributed to the medical charities in Wilts and Somersetshire £2000, and sent 100 guineas to the Medical Benevolent College. The Hon. P. S. Pierrepont, of Evenly-hall, a few weeks ago, sent £1000 to the Northampton Hospital, as a contribution on his birthday.

PRIZES AT THE ACADÉMIE DE MÉDECINE.—It is stated that the Prix Portal, on the Pathological Anatomy of the Ovary, has been decreed to M. Bauchet; while the Academy Prize (on the Applications of the Microscope), and the Prix Civrieux (on Neuralgia), have found no successful competitors.

THE VACANCY IN THE SECTION OF SURGERY AT THE ACADÉMIE.—The Secret Committee has recommended the following order in the list:—Nélaton, Denonvilliers, Hutin, Morel-Lavallée, Bonnafont. No doubt is entertained of M. Nélaton's election.

MUSÉUM D'HISTOIRE NATURELLE DE PARIS.—M. Duméril has resigned his Professorship in this institution.

THE LATE JOHN ELLIS died, October 31, at Bath, aged 89. He was the son of an eminent hop-merchant and factor in Southwark, and was born in the year 1768. Mr. Ellis's father dying in 1805, he was succeeded in his business by the firm of John, Joseph, and George Ellis. Mr. John Ellis took an active part in all the public business and politics of Southwark, and his own parish of St. Saviour's. In the year 1840 he retired from business and settled at Bath. The Schools, Dispensaries, and Annuity Societies of Southwark felt his fostering and sustaining care during the long period of his residence in the Borough, and after his retirement to Bath. His leading idea was, that all the world ought to be as profusely charitable as himself; and a curious anecdote is told (in the *Bath and Cheltenham Gazette*) of the way in which he almost obliged people to give to his pet charities:—"He called on an old hunks whom no one could extract a shilling from for any object, however laudable, and was met by a refusal—'He really could not afford it,' etc. With strange inconsistency, the miser was fond of a good dinner, even when it was his own, and invited Mr. Ellis to partake of one with him. He got the cut direct, accompanied by the chilling rebuke, 'I don't think it right to eat and drink at the expense of such a poor man as you are;'—and the inviter was ever after an altered man." Mr. Ellis became a Life-Director of the Surrey Dispensary in 1808, and a member of the Committee in 1811, a Trustee in 1822, and one of the Vice-Presidents in 1850. He was an annual subscriber of twenty-five guineas to that institution for many years. He paid about £360 towards the present building in the Dover-road; and last year he gave £2,200 to the Building Rent Fund, subject to an annuity of £40 to his housekeeper; and after her death, to the Subscription Almshouses in Park-streek, Southwark. In the year 1842 the Committee and subscribers to this charity, in order to pay a well-merited compliment to Mr. Ellis for his great exertions on behalf of the Dispensary, raised a subscription for his portrait, which was painted by Phillips, and placed in the Dispensary. When he went to Bath, Mr. Ellis took up the Eastern Dispensary, which was then a comparatively small affair; and, after spending £1500 upon it himself, and dunning all his friends, and everybody he could get access to, he had the satisfaction of seeing it possessing a handsome building of its own, with a greatly augmented list of subscribers as well as of patients. To the United Hospital, the Sutcliffe School, the Southern Dispensary, and the Monmouth-street Society, at Bath, he was also a liberal benefactor. Among the numerous legacies left by this gentleman are the following:—To the Medical Officers of the Surrey Dispensary, of the South London Dispensary, of the Eastern Dispensary of Bath, of the Southern Dispensary of Bath, and to Henry Underwood, (architect,) to the Surgeons of the Western Dispensary of Bath, nineteen guineas each;—"the said sum to be paid to them separately and individually. I hope they will consider it a mark of respect from me instead of rings; and I well know their benelent attentions, and the relief they give to the labouring sick and necessitous poor."

To the Monmouth-street Society . . .	£50
To the Leeds Public Dispensary . . .	40
To the Royal Kent Dispensary . . .	40
To the Edinburgh Public Dispensary . .	40
To the Aberdeen Dispensary	40
To the Cheltenham Dispensary . . .	50
A-year, Long Annuities.	
To the Surrey Dispensary	80
And to Mr. Marsland, the Collector of the Surrey Dispensary, who is one of his executors	150

RETIREMENT OF PARIS HOSPITAL SURGEONS AND PHYSICIANS.—By a recent decision of the Conseil de Surveillance de l'Assistance Publique, it has been determined that, at the end of the present year, the following Hospital Physicians and Surgeons will retire on half pay:—MM. Paul Dubois, Cruveilhier, Bouneau, and Hervez de Chégoin. Although M. P. Dubois will cease to act as Surgeon to the Maternity, he will continue to teach Obstetrics at the Clinique. The interests of science, those of the advancing members of the profession, and those of the patients of some of our hospitals, would all gain could a similar Conseil de Surveillance exert a similar pressure in our own country. It too often happens that a man with us has passed middle age before he has obtained a full appointment.

PARIS FACULTY OF MEDICINE.—The number of "Inscriptions" for the Doctorate made between the 3rd and 17th November, 1856, amount to 902, and for the inferior degree, Officier de Santé, 98—total, 1000.

DR. BRISSET, a Physician of Paris, has just left a sum said to amount to from 250,000f. to 300,000f. to the commune of Hirson (Aisne) for the establishment of almshouses for the poor.

THE POOR MAN'S GRATITUDE.—The paupers of St. Pancras Workhouse have raised a penny subscription to present Mr. Waldegrave, a Medical Officer about to retire, with a gold ring, in testimony of their appreciation of his kindness. The "resident paupers" have also presented the same gentleman with an address, expressing their gratitude in very warm terms.

PATHOLOGICAL PRESERVATION JAR.—Dr. Richardson exhibited a jar for the temporary preservation of pathological specimens in the fresh state, at the Medical Society of London last Saturday. The plan is exceedingly simple and effective, The vessel or case, which may be made of metal, earthenware, or glass, consists of an outer cylinder, in which at the bottom there stands up a small glass tube for holding a piece of phosphorus. A little water surrounds this tube to the depth of an inch or two. Covering the water and phosphorus is a perforated stage, on which the specimen to be preserved is placed. The last part consists of an inner cylinder, closed at the top and open at the bottom; this fits into the outer cylinder, its lower or open mouth dropping into the water at the bottom. When once fitted up, this jar will answer for a long time without trouble. The preparation has only to be placed on the stage and the inner cylinder put over it; it will thus be preserved. The principle of preservation is simply owing to the fact that the animal structure is placed in a closed cylinder containing a piece of phosphorus. The phosphorus extracts the oxygen; the phosphoric acid formed is absorbed by the water, and nitrogen only remains in contact with the specimen, the decomposition of which is thus necessarily stopped. The specimens should always be put into the jar in their fresh state.

Dr. WIELOBYNCKI, an homœopathic Physician, was apprehended last week at Edinburgh on the charge of forgery, and after a lengthy examination, was committed on Wednesday to stand his trial in the High Court of Justiciary. We understand that the charge against him is that he aided and abetted in the forgery of the will of Miss Margaret Darling, a maiden lady, who resided with her sister, Miss Isabella Darling, at Portobello. By the will, the authenticity of which is now questioned, the whole property of Miss Margaret Darling was left to her sister, who allowed Dr. Wielobyncki to get possession of it, nominally in trust for her, but practically, so far as can be learned, to dispose of it as he chose. The will was uttered by Dr. Wielobyncki at the Register Office, and duly registered. A couple of the first copper-plate engravers in the city examined the will by the direction of the agent, and having compared it with specimens of Miss Margaret Darling's handwriting, pronounced it to be a forgery. Dr. Wielobyncki was desirous of compromising the matter with Miss Darling's relatives in Galashiels by paying the sum of £1200, but no arrangement was come to. The will has since been destroyed, it is alleged, by Miss Isabella Darling (to whose handwriting it bore a marked resemblance), at the instigation of Dr. Wielobyncki.—*Caledonian Mercury.*

THE BISHOP OF RIPON.—We have been assured that it is incorrect to state that the new Bishop of Ripon was ever a member of the College of Surgeons, or a Licentiate of the Apothecaries' Company. Mr. Bickersteth studied medicine for a short time at Webb-street School in the Borough, but relinquished the idea of entering the Profession before he had proceeded far enough to become a candidate either for the diploma of the College or the licence of the Hall.

MORTALITY NOTABILIA.—An increase of deaths is the effect which was generally anticipated of the late sudden changes of the atmosphere. The amount of sickness in a population, at any time, is measured only approximately by the mortality; and that part of it, which is fatal, is of various duration, and is recorded therefore not in one week, but a succession of weeks. The deaths in London which in two preceding weeks were 1261 and 1158 rose in the week that ended last Saturday to 1318. In the ten corresponding weeks of the years 1846-55 the average number of deaths was 1291. If for comparison with the present return this average is raised in proportion to increase of population, it becomes 1420. The deaths of last week are therefore less by 102 than the corrected average. The deaths caused by diseases of the respiratory organs, which in the previous week were 296, rose last week to 368; and the mortality under this head is higher than is usual in the first week of December. In St. Peter Walworth, at 34*v* Trafalgar-street, three children have died in seven days of scarlatina in one family; and one child in another family in the same house. In most of these cases the scarlatina terminated in low fever.

BIRTHS.—The births of 755 boys and 765 girls, 1520 children, were registered, average 1487.

METEOROLOGY.—The mean height of the barometer in the week was 29·675 in. The highest reading occurred on Thursday, and was 29·96 in. The mean temperature was 35·5°, which is 6° below the average of the same week in 38 years. The mean daily temperature was below the average from 10° to 14° till Friday, when it rose 6° above it. The lowest reading of a thermometer in the air was 19·4° on Sunday; the highest was 56° on Saturday, and the range of the week was 36·6°. The mean dew-point temperature was 32·3°, and the difference between this and the mean air temperature was 3·2°. This difference on Friday was only 0·6°. The mean temperature of the water of the Thames was 39·3°. The temperature of the river varied from 37·1°, the lowest on Thursday, to 42·5° the highest on Sunday and Saturday. Wind, at beginning of week, north or north-west, at the end from the south-west, sometimes in gales. Rain was 0·30 in.

THE following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	2	7	3	6	2	5
North	490,396	1	7	9	6	7	11
Central ..	393,256	2	3	9	3	4	10
East.....	485,522	..	5	10	11	1	13
South	616,635	..	20	14	15	6	9
Total..	2,362,236	5	42	45	41	20	48

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, December* 6, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, Dec. 6, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.	35·5						41·3
Mean Temperature.....							
ALL CAUSES	1318	619	177	232	239	51	1290·9
SPECIFIED CAUSES	1314	615	177	232	239	51	1286·4
DISEASES:—							
1. Zymotic Class	249	201	19	13	15	1	295·0
2. Dropsy, Cancer, and others of uncertain seat	49	6	8	19	14	2	49·4
3. Tubercular Class	205	68	76	54	7	..	191·1
4. Of Brain, Nerves, etc. ..	116	43	6	26	40	1	135·5
5. Of Heart, etc.	58	4	16	15	22	1	52·3
6. Of Respiratory Organs ..	368	169	29	71	87	12	304·6
7. Of Digestive Organs ..	68	27	8	19	12	2	67·1
8. Of Kidneys, etc.	17	2	4	6	4	1	12·3
9. Of Uterus; viz. — Puerperal Disease, etc. ..	3	..	2	..	1	..	9·5
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	8	3	..	1	4	..	9·2
11. Of Skin, etc.	2	1	..	..	1	..	2·0
12. Malformations	2	2	..	..	..	..	2·9
13. Debility from Premature Birth, etc.	38	38	..	..	..	..	30·9
14. Atrophy	31	24	1	..	6	..	23·7
15. Age	52	..	..	..	22	30	62·6
16. Sudden	7	2	1	1	3	..	6·8
17. Violence, Privation, etc....	41	25	7	7	1	1	31·5
CAUSES NOT SPECIFIED.. ..	4	4	..	..	..	..	4·5

BOOKS RECEIVED.

On Poisoning by Strychnia. By Alfred S. Taylor, M.D., F.R.S. London. 1856.

A Letter to the Committee of Visitors of the Surrey Lunatic Asylum. By Charles Snape. London. 1856.

The Mechanism of the Gubernaculum Testis. By John Cleland, M.D. Edinburgh. 1856.

Matter: its Forms and Governing Laws. By George Duplex. London. 1856.

Charleston Medical Journal. November. 1856.

The Morningside Mirror. Vol. XI., Nos. 1 to 12. Vol. XII., Nos. 1 and 2.

The Vetenarian. December. 1856.

The Art of Perfumery. By G. W. S. Piesse. Second Edition. London. 1856.

Transactions of the Newcastle and Gateshead Pathological Society. Sessions 1854-5 and 1855-6.

Defects of Sight. By T. Wharton Jones, F.R.S. London. 1856.

The Stomach and its Difficulties. By Sir James Eyre, M D. Fourth Edition. London. 1856.

A Compendium of Domestic Medicine. By John Savory. Fifth Edition. London. 1856.

The Change of Life in Health and Disease. By E. J. Tilt, M.D. Second Edition. London. 1856.

On Rheumatism, Rheumatic Gout, and Sciatica. By H. W. Fuller, M.D. Second Edition. London. 1856.

Pathological Chemistry in its Application to the Practice of Medicine. Translated from the French of Becquerel and Rodier. By S. T. Speer, M.D. London. 1856.

Gleig's School Series. Domestic Economy. London. 1856.

Observations on the Topography and Climate of Aspley Guise. By J. Williams, M.D. London. 1856.

TO CORRESPONDENTS.

W. H. M.—The copyright in reviews, periodical works, and works published in a series, is vested in the proprietors, who have employed and paid persons to compose the articles. But the right to republish separately essays or articles published in any periodical, reverts to the author after twenty-eight years.

Copyright.—According to the Act of 1842, the copyright of every book published in the lifetime of its author shall endure for his natural life, and for seven years from the time of his death; but if that time expire earlier than 42 years from the first publication, then the copyright is to endure for forty-two years.

A Student.—Any person offending against the Anatomy Act is liable to imprisonment not exceeding three months, or to a fine not exceeding £50.

Imperitus.—The Medical Practitioner who certifies to the insanity of a Luuatic Pauper must specify the *reasons* which have induced him to form his opinion, otherwise the certificate will not be valid. The Union Medical Officer was forbidden, by a former Act of Parliament, to give the certificate, but the clause is repealed, or rather omitted, in subsequent enactments.

MR. NEWNHAM'S PORTRAIT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall be happy to add my Guinea to the Subscription for the purpose of purchasing the Portrait of Mr. Newuham, to present it to his Family, and I thank you for the opportunity of testifying my respect and esteem for that excellent man. I am, &c. W. F. MORGAN.

2, Berkeley-square, Bristol, December 6, 1856.

UNIVERSITY OF LONDON CORRECTED LIST OF CANDIDATES FOR HONOURS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—It is due to my young friend and *quondam* apprentice, Mr. J. C. Thorowgood, to state that the corrected list of Candidates, just published, shows Messrs. Blake and Thorowgood *equal* for Honours in Medicine, with Gold Medal to each, and uot first and second respectively, according to the first List (erroneous in this one point), transcribed into your number of last week.

Your kindly noticing the above will oblige Yours, etc.

Whetstone, December 10, 1856. G. BURY.

A Registrar.—It is quite true, that notwithstanding the very excellent classification of fatal diseases drawn up and circulated by the office of the Registrar-General, the causes of death are still very imperfectly described. It is very hard that the members of the Medical Profession are expected to make returns to the district Registrar without remuneration.

We do not think any good could be done by the publication of the letter of *Rhadamanthus.*

Mr. Yearsley's account of the Artificial Tympanum shall appear next week.

A Subscriber.—The letter has been referred to Dr. Ballard.

Mr. Rhind's paper shall appear. We are glad to receive such testimonials of the estimation in which Mr. Huxley's lectures are held.

P. P.—As medicinal agents, it is thought that other oils are not efficient substitutes for the Cod-Liver Oil, as this oil contains *propyle*, the oxide of an organic radicle, only known as an artificial compound, and forming, with ammonium, *propylamine.*

Dr. B.—We do not think the treatment of burns and scalds by water, dressing is at all uncommon, or that the principles laid down in the paper are sufficiently novel to induce us to publish Dr. B.'s communication.

J. A. S.—No Registrar has been appointed.

Mr. Hardwick's cases of ovarian dropsy shall appear as soon as possible.

Pro Bono Publico.—The article in praise of Rhubarb is scarcely adapted for our pages. The Profession generally are well acquainted with the utility of mild apericnts in the treatmeut of piles.

Mr. Dale's cases shall be inserted.

Dr. Shearman's interesting case of Poisoning by Morphia shall appear as soon as possible.

J. T., M.B.—The work was published by Mr. Churchill in 1848. It was by Dr. Turnbull, and entitled "Treatment of Diseases of the Eye by Prussic Acid Vapour." We should have far greater faith in the removal of the opaque lamina by operation, which is very successful in certain cases of opacity of the cornea.

G. B.—The Surgery is purer than the English, but it is well to correct such things by a private hint.

Mr. Lowdell's cases shall appear in an early number.

Reports of the Epidemiological, Harveian, and Medical Societies of London; Papers by Mr. Amyot, Dr. Marston, Mr. Hutchinson, &c., are in type, but are unavoidably postponed.

"EMERODS."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Your Journal of October 11th has just come into my hands, through a Book Society to which I belong.

Vide "*Emerods.*"

Vide also 1 Samuel v. 6. I am, &c. T. H. H.

COMMUNICATIONS have been received from—

Dr. BENCE JONES; Dr. SPEER; Mr. TOYNBEE; Dr. MACKENZIE; Dr. LOTZKY; Dr. CHAMBERS; Mr. LAWRENCE; Dr. M'WILLIAM; Dr. BERTHERAND, Algiers; Dr. SMART; Mr. HARDWICK; Mr. KESTEVEN; Mr. BURY; SECRETARY OF MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH; Mr. POPE; Mr. MORGAN; Mr. AMESBURY; Mr. WEBSTER; Mr. ANDREWS; Mr. MACFARLANE; Mr. LEIGH; Mr. TUPPER; Mr. YEARSLEY; Mr. BARNARD DAVIS; Mr. MADDEN; Mr. HOLMES; Mr. HENRY LEE; Mr. BOND; Mr. LEY; Dr. HUMPHREYS; Mr. H. SMITH; Mr. JONES, Jersey; Dr. RAMSKILL; Dr. SHARPEY; Mr. W. ADAMS; Mr. LOWDELL.

APPOINTMENTS FOR THE WEEK.

DECEMBER 13. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m.: Mr. T. Hunt "On the Treatment of Ulcerated Legs without Rest."

ROYAL BOTANIC SOCIETY, 3¾ p.m.

15. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

CHEMICAL SOCIETY, 8 p.m.

16. *Tuesday.*

Operations at Guy's, 1 p.m.

PATHOLOGICAL SOCIETY, 8 p.m. Council meets at 7 p.m.

STATISTICAL SOCIETY, 8 p.m.

LINNEAN SOCIETY, 8 p.m.

17. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 3 p.m.

HUNTERIAN SOCIETY, 8 p.m.: Dr. Little "On Venesection as a Remedy in Disease."

GEOLOGICAL SOCIETY OF LONDON, 8 p.m.

18. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

ROYAL SOCIETY, 8½ p.m.

19. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

ON THE TREATMENT OF SOME OF THE SECONDARY AND TERTIARY FORMS OF SYPHILITIC DISEASE,

By T. SPENCER WELLS, F.R.C.S.

Lecturer on Surgery at the Grosvenor-place School; Surgeon to the Samaritan Hospital, etc.

Syphilitic Disease of the Skin—Roseola, simple and annular—Purpura—Lichen, simple and ulcerating—Prurigo—Lepra, and Psoriasis—Use of Mercurial Vapour Baths—Rupia—Ecthyma—Tubercles and Excrescences—Diseases of the Bones and Joints—Syphilitic Angina—Alopecia—Onychia—Diseases of the Tongue—Syphilitic Iritis—Disease of Testicle—Infantile Syphilis.

Gentlemen,—I shall conclude to-day that part of the Surgical course devoted to the consideration of those diseases dependent on morbid poisons which as Surgeons we may be called upon to treat. In the last lecture we entered pretty fully into the question of the treatment of the primary forms of syphilis. I proved to you that early cauterization of chancres, though useful as a means of healing the primary sore, does not prevent contamination of the blood. I showed you by as large a body of evidence as was ever collected upon any Medical question, with the exception of that of vaccination, that mercury is not only not necessary for the healing of the primary sore, but that it actually retards the cure in all cases but those of true indurated or Hunterian chancre. I showed you further that it is no preservative from secondary symptoms, and that the safest rule of treatment was to heal the primary sore as soon as possible, and by the simplest means. I pointed out the cases in which mercury, opium, and iron were respectively indicated, and gave you a variety of practical hints for the treatment of the principal varieties of chancre. In the lecture before the last, I had described to you a number of the secondary and tertiary forms of syphilitic disease; to-day we will consider how we are to treat them. But before doing so, I must say a few words about an old teacher and valued friend, from whom I gained a great part of what I know on syphilitic disease, and to whom the Profession is indebted for the discovery of the value of the iodide of potassium in its treatment,—the late Dr. Robert Williams, of St. Thomas's Hospital. I have seen it stated very lately(a) that my old friend was "unimpressed with the importance of the art he professed, so as to be described by his biographer as having 'little faith in physic,' and notoriously difficult to drive into writing a prescription." Now, gentlemen, there never was a greater mistake than this. It is true that Dr. Williams had little faith in ordinary medicines as commonly prescribed, but he had the most implicit confidence in medicines which he had proved by careful experiment to have certain and definite actions. He was always on the search for new remedies. "Better," he used to say, "one new remedy than a dozen new symptoms." He was fortunate enough to discover two: iodide of potassium for some forms of syphilis, and bromide of potassium for enlarged spleen. These medicines he prescribed with the greatest confidence. He had equal confidence in port-wine as a remedy in idiopathic erysipelas. He prescribed sarsaparilla with equal faith in certain cases which I shall presently describe to you. He entered upon a long and laborious investigation as to the effects of a great variety of medicines in phthisis and albuminuria. I believe he was on the point of establishing a most important practical rule as to the use of arsenic in kidney disease when death cut short his useful life. He is one of the last men of whom it could be said, "He had no faith in physic." He was one of the most philosophical physicians of the age, and no man knew more exactly what could be done by medicine, and how to do it. I shall not apologize for this apparent digression, gentlemen, because it was from Dr. Williams I learnt most of the practical precepts I shall now endeavour to impress upon you. I learnt them from him in 1840, and I have had ample opportunity since then in the practice of large Naval and Military Hospitals, ships of war, and in private, of testing their value.

(a) Dr. Chambers's True Art of Healing, page 5.

First, then, as to the treatment of *Syphilitic Diseases of the Skin*. You may remember my showing you how cutaneous syphilitic disease simulates every species of chronic skin eruption, and my pointing out certian peculiarities by which you might recognise the syphilitic origin in suspicious cases, such as, 1st, the shade of colour being deeper red or more coppery; 2nd, the liver-colour stain left on the skin after the subsidence of the eruption on some parts of the body; 3rd, the great tendency to run on into chronic ulceration; 4th, the co-existence of two or more dissimilar eruptions in the same person; and, 5thly, the frequent absence of itching. I need not repeat what I said as to the history of the case and the concomitant symptoms; you would not neglect them in doubtful cases. It is in the out-patients' room that you must learn to recognise these diseases; and remember that unless you can recognise them, you certainly will not be able to treat them successfully. Recognise them, and they are perfectly under your command.

First, then, of the simple *rashes*, or syphilitic exanthemata. The simple febrile roseola requires no Medical treatment. It yields to mild aperients and diluents. The annular form of roseola, which very much resembles measles in appearance, very soon yields to the iodide of potassium; that is, if you give it before desquamation has taken place and the copper-coloured stain has formed. When this has once formed it will not disappear for many weeks or months, whatever treatment you employ. Syphilitic purpura must be treated by a generous diet, and the iodide of potassium with decoction of bark.

Next, let us take the syphilitic *papular* eruptions. The simple syphilitic lichen you will find obstinately resisting every internal remedy; but I have never seen a case which was not rapidly cured by a strong lotion of the bichloride of mercury, 10 grains to the ounce. In the ulcerating form of lichen the iodide of mercury, given internally, is the best treatment; you give a grain every night in a pill, with 2 or 3 grains of the extract of conium or hyoscyamus; and after a week give the pill night and morning. A fortnight generally makes a vast difference for the better under this treatment. If the mouth become at all sore you will do well to omit the pills for a few days, and return to them. Syphilitic prurigo is a very obstinate affection; but it yields more readily to sarsaparilla than to any other remedy. You must take care, however, that the druggist who makes up your prescription really uses sarsaparilla. I have been so often disappointed in this manner that I have long followed a hint of Sir Benjamin Brodie's, and ordered Hudson's Syrup of Sarsaparilla, which is a preparation on which you may safely rely.

In the *scaly* forms of syphilitic eruptions, lepra and psoriasis, Donovan's solution is the most efficacious internal remedy. It is the liquor arsenici et hydrargyri hydriodatis of the Dublin Pharmacopœia, and you may give it in doses of 10 minims to half-a-drachm three times a-day. The best local applications are, the bichloride of mercury lotion and the red precipitate ointment. In some cases, the mercurial vapour bath will be very useful; you can apply it very easily in any house. Get a common chair with a wooden seat, on the seat place a folded blanket, let the patient sit naked on this blanket; then have three or four blankets tucked round him, falling from the neck like a cloak on to the ground; place his feet on a footstool within the cloak, put a spirit-lamp beneath the chair, and over this a tin-plate, on which you place the mercurial preparation you mean to use. The blankets are not to be used if the patient has one of the waterproof cloaks sold with spirit-lamps expressly made for vapour baths. The advantage of the blanket is that you find it everywhere.

Mr. H. Lee has devised a very convenient form of spirit-lamp for this purpose, which is made by Mr. Mathews, of Portugal-street. The burning spirit is enclosed in wire-gauze, and there is a little tin saucer, in which the mercury is put over the light. A similar lamp is used for water, so that moisture may be used with the mercurial vapour. A pipe is fixed over the saucer when it is desirable to localize the action of the vapour. Among Hospital out-patients, or in Union practice, you will not be able to afford spirits of wine. The simplest plan, then, is to have half-a-brick heated in the fire, and put in a chamber-pot beneath the chair. The calomel, or other mercurial preparation, is then simply thrown on the brick, and it soon vaporizes.

If you use the bisulphuret, you may begin with a drachm,

and increase to 2 or 3 drachms. If you use the iodide, 5 grains will be often sufficient, but you may increase it to half-a-drachm. I prefer a mixture of the two, as recommended by Mr. Langston Parker; and generally order 10 grains of the iodide, with a drachm of the bisulphuret, increasing the dose to double this quantity. At the Lock Hospital calomel is generally used, as a smaller quantity is required, and it is vaporized at a low temperature. Ten grains suffices at each fumigation. I can tell you nothing of the effects of calomel vapour from my own experience, as I never like to change a remedy when I can rely on the effects it produces.

You may use the vapour simple or combined with the steam from boiling water, in either case supplying the patient freely with drink and putting a cold wet towel on his head if he complain of headache or fulness. In strong people, you may keep up the exposure to the vapour for 10 or 15 minutes after perspiration appears on the forehead; but weak people do not bear it longer than is sufficient just to induce perspiration. In either case, directly the blankets are removed the patient must be rubbed thoroughly dry. If he have a good servant, and especially if he cannot afford time for confinement, a wet sheet wrung out of cold water should be flung over him the instant the blankets are removed, and rubbed vigorously over his back, while he himself rubs his chest and legs; then a dry sheet should be used in the same way. In this manner the skin is rendered less sensitive to cold, and the relaxing effects of the vapour bath are diminished. You may repeat the baths two or three times a week.

The only *vesicular* form of syphilitic cutaneous disease you are likely to be called on to treat is Rupia, and it is over this debilitating and dangerous affection that Dr. Williams has given us such complete power. Mercury is most dangerous if given internally or rubbed in, as he has shown; while, unless the patient be actually dying, you will always cure him by giving him the iodide internally, and using the red precipitate ointment locally. You will, of course, remove the hard crust or scab with a poultice before applying the ointment. If the patient be much emaciated you will at the same time give a liberal animal diet, with wine and beer.

The only syphilitic *pustular* disease I need allude to is Ecthyma. This again is aggravated by mercury; but sarsaparilla often cures it. When it has gone on to ulceration it is to be treated exactly as a case of Rupia, with the iodide internally and the red precipitate ointment locally.

The syphilitic *tubercular* eruptions are always obstinate. You must never promise a rapid cure. The mercurial vapour-bath is the best treatment, and the red precipitate ointment if ulceration have taken place.

Cutaneous *excrescences* or *growths* may be easily destroyed by strong acetic acid or the muriated tincture of iron; but Ricord's plan of using a chloride of soda lotion for a few days, and then sprinkling the growths with calomel, is the best treatment. A few days will suffice to get rid of very large growths.

Let us now pass to the treatment of syphilitic diseases of the bones. It is in the hard periosteal node on any part of the body that the iodide of potassium is the specific remedy. It was in 1831 that Dr. Williams made his first experiments with it, and he went on until he showed that its effects are as certain as those of quinine in ague. The pain is relieved at once, and it is only in the old node where bony growths have formed, a condition, as Dr. Williams used to say, we ought never to see again in this country, that it fails to remove the tumour. The dose he used as a general rule in an adult was eight grains three times a-day, and to this dose I have generally adhered. Less is not enough, and more is too much. Give it simply dissolved in water or camphor mixture. Dr. Williams showed the absurdity of adding free iodine to the mixture. The iodide contains three-fourths of its weight of pure iodine, so that a patient taking twenty-four grains in the twenty-four hours takes eighteen grains of iodine. No good can be done by adding half a-grain or a grain of iodine to this. It only irritates the stomach, and may oblige you to discontinue the remedy. A month is about the average period of treatment; but it will be longer, as Dr. Williams showed, if mercury have been used before.

The soft or gummy node is very little influenced by any general treatment, but it gradually yields to repeated blistering.

Inflammation of the substance of the long bones must be treated on general principles, bearing in mind, however, the great power of the iodide. When the bones of the nose, palate, or face, are affected, it is generally after some continuance of chronic coryza, characterized at first by constant snuffling, and a free discharge at first of mucus, and afterwards of fetid pus, which dries and forms scabs within the nares. Then the septum is perforated by ulceration, and the disease, if unchecked, goes on to destroy the columna and alæ, spongy bones, vomer, ethmoid, and nasal bones, and, perhaps, extends to the bones of the base of the skull. This is a state of things we never ought to see. The iodide will prevent exfoliation if given early enough, but it has not much power by itself if the disease have gone on. However, in any stage, you can *always* stop the disease, and save the nose if not already lost, by combining the internal use of the iodide with the local application of mercury, either by local injection of black wash, the insufflation of 2 grains of calomel with 5 grains of powdered gum night and morning, or, what is better still, by the red precipitate ointment when you can apply it.

In those chronic diseases of the joints which depend on syphilitic affections of the ligaments and fibrous capsules, either with or without synovial inflammation and effusion, the iodide of mercury is more generally useful than the iodide of potassium. But these affections are very obstinate, and it does not do to continue the mercurial preparation too long, so that it is a good plan to give a grain of the iodide of mercury every night for ten nights, and then give the iodide of potassium, 15 to 24 grains daily for a week or two, returning to the mercurial if necessary. Blisters at a small distance from the affected joint, and iodine paint over it, hasten the cure. A liberal diet should generally be given in these cases. Occasionally, when the general health has been a good deal affected, and the stomach did not bear either of the iodides well, I have found a liberal meat diet, with port wine, and four or six ounces of lemon-juice daily, answer remarkably well. When the ankle-joint is affected, I prefer friction night and morning in the warm nitro-muriatic acid bath to blistering or the use of iodine paint. The bath is made by mixing three parts of hydrochloric acid and two parts of nitric acid with five parts of water, and adding three ounces of this dilute acid to each gallon of water.

Then as to those dangerous affections of the throat known as syphilitic angina. In the slighter cases, where the ulceration though extensive is superficial like an excoriation, and the general health of the patient is pretty good, it is well to use mercurial fumigation, taking care, however, to stop it as soon as the healing process commences, and not to induce salivation. The mercurial vapour may be inhaled with advantage, thus affecting the throat locally. The grey oxide answers here better than the bisulphuret, as it causes less coughing or sneezing. In the more severe cases, where the ulceration is deep and phagedænic and the constitution of the patient a good deal shaken, Dr. Williams's treatment by the iodide of potassium internally and the red precipitate ointment locally acts like a charm. The sloughing process is checked at once, healthy granulations spring up, and the miserable emaciated being flushes up into new life. Good beef-tea and sago with plenty of port wine must be given at the same time, but this does not do alone. It is the combination of the local use of mercury with the internal administration of the iodide which is so wonderfully potent for good in these cases.

In some cases of advanced syphilis the mucous membrane of the larynx is thickened and ulcerated, and you have all the symptoms of chronic laryngitis, loss of voice, and cough, with copious and often fetid expectoration, and difficulty and pain in swallowing. Œdema of the glottis may come on and the patient die of asphyxia, unless you save him by tracheotomy and thus gain time to cure the disease. Such patients are often too much broken down to bear mercury, and you will have to treat them with good diet, nitro-muriatic acid and sarsaparilla, or cod-liver oil with iodide of iron at first, and afterwards the iodides of potassium or mercury. A great deal of relief is often afforded by sponging the glottis with a strong solution of nitrate of silver, 10 or 20 grains of the nitrate to the ounce of water.

Then I must say something about those syphilitic affections of the hair and nails you may often see in practice. The loss of hair, *alopecia*, is very common with other secondary symptoms. The hair withers as it were and comes off in the hand or the comb—not only the hair of the scalp, but all over the body. This generally occurs with scaly and other

superficial skin diseases and superficial ulceration of the mucous membrane; rarely with tubercular or pustular affections or the excavated ulcers of the fauces. Sometimes when the hair does not fall off there is a constant formation of scurf on the scalp in large quantities, which is very annoying and troublesome. These are cases to treat by mercurial fumigation constitutionally, the mixture of iodide and bisulphuret answering best. The head should be shaved two or three times, and should be anointed every night with equal parts of the red precipitate ointment and scented pomatum. This should be washed off in the morning, and the head rubbed with a stimulating liniment. One which answers very well is made by one part of tincture of cantharides, one of eau de Cologne, and two to six parts of glycerine, according to the irritability of the skin. The mercurial soap recommended by Sir Henry Marsh is useful in these cases. It is made by beating up a drachm of white or red precipitate with an ounce of Windsor soap.

As to the *nails*, you may see them simply drop off, without any other change; or they become thick and opaque, and crack; or the matrix inflames, the skin around the edge ulcerates, and fetid pus exudes from between the nail and the skin. I have known people who had been troubled for years with this state of things. In the treatment you must trust a great deal to the local use of mercury, either in ointment, powder, or vapour. Constitutionally, the bichloride with bark answers better as a general rule than other preparations of mercury or the iodide of potassium, but you may have to ring the changes upon these.

Then you will remember I described to you pretty fully the secondary syphilitic affections of the tongue, and told you how to distinguish the increased vascularity and tenderness, the superficial and deep ulcerations, and the cracks and vegetations, from analogous conditions produced by mercury and iodine; and the hard solid enlargement or nodulation from incipient scirrhus. As to the treatment, you will generally have to employ mercurial fumigation and the administration of opium pretty freely. Strong gargles of tannin are often useful, and the linimentum æruginis of the Pharmacopœia is an excellent application to the deep cracks or fissures you sometimes see almost splitting the tongue into two.

Then in the substance of other muscles you sometimes get these solid tumours. They are often called muscular nodes, and occur with the affections of bones. Their most frequent seat is the flexor muscles of the leg and forearm. You had better treat them by the iodide of potassium internally, and locally by iodine paint, friction, and pressure, or a succession of blisters. This will generally disperse them; but I have seen them soften, and after a puncture continue to discharge a sort of glairy synovia for several weeks, which gradually ceased as the general condition improved.

A few words as to the treatment of *syphilitic iritis*, a form of disease I described to you at some length. If you meet with it in an acute form in a patient otherwise in pretty good health, you must put him on low diet, avoid all stimulants, shade the eye, apply a few leeches to the temples, and below the inner end of the lower lid, have the bowels well cleared out, and then commence at once with the use of calomel and opium. The best plan is to give a grain of calomel with a quarter or a sixth of a grain of opium every three hours, until you see that all effusion of fibrin has ceased. It is neither necessary nor desirable to make the mouth sore, and you will frequently see a stop put to the effusion of fibrin even before the gums become in the least tender. As the fibrinous deposit becomes absorbed it is well to foment the eyelids, brow, and temples, with a tepid lotion, composed of a drachm of extract of belladonna to a pint of water, or keep a piece of spongio piline wetted with this lotion over the eye; but remember that the pupil will not expand until the fibres of the iris have been partly freed from the effused fibrine. You will also gradually cease the mercury, giving it in smaller doses, and at longer intervals, until vision becomes clear, and the vascular zone around the outer edge of the cornea disappears. But you may meet with syphilitic iritis in a very different class of cases. The patient has been either debilitated by a long course of mercury or other causes, or the disease may have arisen while he was actually under the influence of mercury given for some other form of syphilitic disease. This is a more destructive and intractable form of disease than the acute. You will have to allow a liberal diet, and send the patient into the country if possible. If he will bear the iodide of iron, give it at once; if not, give quinine in as large doses as the stomach will bear, and then give the iodide of iron. In cases where the debility is not so very great and mercury is still contra-indicated by the state of the patient, the oxide of potassium may be used with success. If you meet with the disease in an infant, you will do well to use mercury inunction, in the manner I shall presently describe to you. In the form of iritis, which I told you follows gonorrhœa and synovitis, and in which there is so large a deposit of curdy lymph in the anterior chamber and on the surface of the iris, remember that the three affections, gonorrhœa, synovitis, and iritis may alternate. Treat the iritis actively by leeching, purging, calomel and opium, blistering, and belladonna fomentations, and you will treat it successfully. The lymph will disappear, but prepare your patient for a return as long as any gleet or synovitis remains.

In cases of syphilitic disease of the *testicle* you may find the organ simply enlarged, smooth, and heavy; or enlarged by uneven irregular hard knots—in either case without much pain or tenderness in the testicle itself, but with a good deal of uneasiness in the loins from the weight, and often with more or less fluid in the tunica vaginalis. In the latter case it is well to commence the treatment by puncture with a fine trocar; in both forms a mild mercurial course should be commenced if the constitution of the patient does not forbid it. The testicle will, of course, be supported by a bandage; and much good is done by exerting a certain amount of compression on it by painting the scrotum with collodion. If mercury be contra-indicated, the iodide of potassium is the next best remedy, given in the doses I have before directed.

With regard to the treatment of secondary syphilis in infants, I cannot speak too strongly of Sir Benjamin Brodie's plan. He has a flannel bandage rolled round the knee, with a drachm of mercurial ointment spread on the end first applied. This is repeated daily. It does not affect the gums. It causes neither griping nor purging, but it cures the disease. Sir Benjamin says, "Very few children ultimately recover in whom mercury has been given internally; but I have not seen a single case in which this other treatment has failed." I can entirely corroborate this statement and would strongly advise you to remember it. Of course the mother or nurse must be treated at the same time. If any of your patients have had children born dead with evidence of syphilis, or if there have been frequent abortions, and either father or mother have suffered from secondary syphilis, you will do well to treat them both by a mild course of mercury. Even if a woman be pregnant do not be afraid of mercury leading to abortion; on the contrary, it preserves the life of the child. Inunction is a good plan in these cases. If primary sores should occur during pregnancy, you will, of course, treat them on general rules, but avoid much mercury in the ninth month. If, in attending a labour, you discover a chancre on the woman's genitals, remember the danger of inoculating the child or yourself, and destroy the virus by applying caustic or nitric acid to the chancre as soon as you discover it.

Now, gentlemen, don't suppose that I am taking credit for anything new in all this. I have told you what I have learnt from Dr. Williams and others, modified in some particulars by a good deal of experience; and I feel confident that, by bearing in mind what I have said, you will succeed in curing a great number of cases which would worry you excessively if you did not know the importance of the details I have given. And remember, after all, the great object we have in view is to cure disease. All your study tends to that end; and, as you succeed or fail in curing your patients, so, as a general rule, will you succeed or fail in life. The rule has its exceptions; but, depend upon it, it holds good in the main.

PRIZE QUESTION.—The German Society for the Advancement of Scientific Medicine proposes the following subject for its prize for 1856-7. "What influence, under different conditions, does bodily movement, carried to the extent of fatigue, exert upon the human organism, and especially upon the metamorphosis of tissue?" The essays are to be forwarded to Dr. Beneke, Secretary, Oldenburg; and the decision will be announced when the Society meets at Bonn in September, this being the place of assemblage of the next meeting of the German Association of Naturalists and Physicians.

ORIGINAL COMMUNICATIONS.

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No. XXVIII.

OBSERVATIONS ON CASES OF PERICARDITIS,

ADMITTED INTO MALTA MILITARY HOSPITAL, DURING 1855-6.

By JEFFERY A. MARSTON, M.D.,
Staff Assistant-Surgeon.

From January, 1855, to February, 1856, we have examined 13 fatal cases of pericarditis, occurring among the Crimean invalids, landed at Malta, and among the drafts quartered at this station. The pathological interest, perhaps, would be scarcely sufficient to merit the attention of the Profession, had we not observed in Malta the frequent origin of pericarditis, uncomplicated with albuminuria or rheumatism.

Having in Hospital practice in England been forced to consider this lesion as very uncommon, save, as it were, as an anatomical phase of a more general disease, as rheumatism, morbus Brightii, or purpura, we have been led to consider it peculiar. The total number of cases of pericarditis we have witnessed amounts to 31, of which number 13 have been examined after death. The deaths chiefly occurred among the men landed from the Crimea, and no prognosis whatever could be formed of this disease from them; as there always existed other and more important lesions or more general diseases. Two deaths only have arisen among the cases which occurred to soldiers in the island, although, from the habit of invaliding men to England, many may have subsequently been fatal. On analysing the cases we find the following:—Total cases treated 31, of which 15 occurred among Crimean invalids, and 16 among men composing the drafts stationed at Malta.

Pericarditis, complicated with renal disease	5
,, ,, with rheums. acutus (at one period or other of their history)	7
,, ,, with typhoid fever	3
,, ,, dysenteria chronica	2
,, ,, tuberculosis	2
,, ,, scorbutic diathesis	1
Total number in which no observed diathesis existed	11
	31

Upon analysis of the symptoms of the fatal cases abstracted from the private notes we preserved, we find—

That in 4 cases there existed some peculiarity of position, as a dislike to lie on one or other side, or completely supine; in 2 cases the subjects of the disease slept with their heads and shoulders resting on a table.

In 4 cases there existed irregularity of the pulse; an intermission in point of time and duration of each beat.

In two cases there was inequality between one pulsation and another in point of force and size.

All the fatal cases, accompanied by much effusion, presented, as the more immediate symptoms, great dyspnœa, tendency to syncope on exertion, with gradually crescent asphyxia.

In 26 of the whole number of cases, the pulse was accelerated permanently; in 3 it was accelerated on slight exertion; and in 2 the pulse remained quite normal.

2 fatal cases complained of pain down left arm, and both these had, besides recent pericarditis, chronic pericardiac adhesions around the base of heart.

2 had choreac movement of some kind, affecting one or more of the extremities.

1 of those of rheumatic origin was attended by the delirium, and taciturnity peculiar to those cases.

Beside the diseases with which we have classed the pericarditis in the preceding table, symptoms of bronchitis existed in 4; œdema of the lungs in 3; phthisis in 5 (2 attended with appreciable amount of liquid effusion); 2 with pneumonia; 3 with hepatic symptoms.

Among the stethoscopic symptoms—	
Exocardial friction murmur detected in	13
Murmurs doubtful, whether with exo- or endocardial disease	2
Increased cardiac dulness to a greater or less degree	10
Extensive ,,	5
Abnormality of impulse (including diminution, distance, diffusion, and irregularity)	12
Retraction of the intercostal spaces	3
Tactile vibration	3
Cases in which Dr. Stokes' test of pressure increasing the force of the exocardial sound was applied with success in a doubtful murmur	2
Total cases in which the pericarditis was not suspected at all during life	2
Tabular results of 13 post-mortems—	
Pericardium.	
Pus to the amount of nearly a quart existing in pericardial sac	1
Sero-purulent fluid with lymph	2
Large serous effusion with little lymph	2
Effusion of lymph in large quantity	3
Adherence of pericardium complete or nearly so	2
Partial adherence from old disease, with purulent lymph existing	2
Effusion of lymph on exterior of sac, with existing pericarditis (Tactile vibration present.)	1
Heart,—size, etc.	
Hypertrophy, great (Both had valvular disease conjoined with partial adhesion; fatty degeneration present in 1.)	2
Hypertrophy, slight degree (Partial adhesions, purulent or old, or both, in every case, 2 had mitral disease conjoined; 1 had steatomatous disease of the aorta.)	4
Atrophy (2 complete adherence of pericardium; 1 large quantity of pus in sac; 2 with fatty degeneration.)	4
No appreciable change in dimensions 1 mitral disease, slight.	3
Total	13
Diseases of valves and great vessels.	
Steatomatous disease of aorta and commencing ulceration	1
Mitral disease	3
Aortic valvular disease	2
Fatty degeneration	3

Of course (both as regards the symptoms and pathological changes), one or more may have been conjoined in the same subject.

We have not considered it necessary to give the morbid changes which occurred in all the viscera, or their condition. From this Table, it appears that the consecutive morbid changes produced upon the heart by pure pericarditis, proved to be more frequently an atrophy, combined with some form of fatty degeneration, particularly if the subject of the disease be young (as Dr. Monck remarks), and the adherence general or nearly so; while hypertrophy seems to be always combined with some endocardial disease, or with partial adherence. Pericarditis, resulting from morbus Brightii, may yield different results, on account of the direct tendency which that condition of the system has to produce hypertrophy of the left ventricle. Both Latham and Andral remark the not unfrequent occurrence of pericarditis, immediately prior to death, in certain diseases, as phthisis and typhoid fever, and probably some of the cases may have been of this kind. From among the eleven cases of stated idiopathic pericarditis, we may deduct one, in which arthritic inflammation subsequently supervened, and two, in which unquestionable prior pericardiac disease had existed, as proved by distinct, but slight, old adhesions about the cardiac base, leaving eight unconnected, apparently, with the ordinary existing diathesis, and not the result of external injury. The greater number of cases admitted from among the drafts stationed at Malta, occurred between May and September, 1855:—Two cases were in the wards of the Hospital, at the supervention of pericarditis, suffering from diseases totally unconnected with any known humoral condition likely to produce the disease. The tem-

perature ranged between 75°—90° F. Sirocco winds, as is always the case in the island, occasionally prevailing. Some of the recruits, gathered, as they were, from the worst classes of society, might have had a prior pericardial adhesion, which might have escaped detection; and the sudden exposure to drill, which, of all other exciting causes that we have witnessed, has the most decided influence in producing cardiac excitability and disease, with the climateric influences operating at the same time, might have reproduced a disease of the heart or pericardium. Dr. Latham states that nothing more predisposes to a reproduction of pericardiac disease than the prior existence of that disease; and we certainly conceive, that the effects of pack-drill upon a subject of carditic disease would be such as to make it very speedily assume a crescent form, which may, indeed, be so severe as to threaten a fatal termination by syncope, apnœa, hæmoptysis, or acute anasarca.

(To be continued.)

ON THE COMMUNICATION OF SYPHILIS FROM THE FŒTUS TO ITS MOTHER.

By JONATHAN HUTCHINSON,
Surgeon to the Metropolitan Free Hospital.

The class of cases to which I have to ask the reader's attention is that in which married women become the subjects of constitutional syphilis without having ever manifested any primary symptoms. The proposition which I have to maintain is, that in these instances, which I believe to be very frequent, and the occurrence of which has been recognised by most Surgeons, the disease results from contamination of the maternal fluids by those of a fœtus in utero, begot by a syphilitic father. Having first endeavoured to afford proof of this doctrine, I shall then attempt an examination as to some peculiar features of the disease when thus derived. It will be convenient, before entering upon the subject-matter of the paper, and is, indeed, due to the eminent observers whose names are to be mentioned, to give, in few words, a sketch of the gradual development of opinion on this question. When cases of congenital syphilis first came to be observed, it was customary, I believe, misled by the circumstance that such infants are usually born remarkably healthy, and do not show symptoms of the disease until a week or more afterwards, for Surgeons to hold that the disease had been contracted by the fœtus from its mother during delivery. Close upon this doctrine followed the observation that mothers suffering from constitutional syphilis brought forth children liable to the same disease. For long it was then held that the father could only communicate the disease to his offspring by first giving it to his wife. Numerous cases, not to be so explained, at length led to the doctrine, now almost universally held, that a father begets children liable to his own diseases and constitutional taints, and that, consequently, a child may be born of a healthy mother, which shall, in virtue of a morbid predisposition derived from its father, suffer from hereditary syphilis. This doctrine is so simple, and although we know nothing whatever respecting the mode in which the paternal influence is thus communicated to the ovum, yet the fact is so abundantly demonstrated that it now obtains very general credence. In a very large proportion indeed of the cases of congenital syphilis the disease is now acknowledged as derived from the father only. Thus much respecting the father's influence on the fœtus; let us now glance at that of the latter upon its mother, and that of a husband suffering from constitutional taint only upon his wife. Until within a very recent date, indeed (twenty years, perhaps), I believe I may assert that the idea of a syphilitic fœtus in utero exerting a contaminating influence on its mother had not entered the minds of any. On the other hand, cases in which married women became the subjects of constitutional syphilis, while there was every reason for believing that they had never had any form of primary disease, were so frequent that they attracted the attention of almost all writers on the subject, and elicited several different attempts at explanation. Not to mention a long list of older authors, we have in the last edition of Mr. Langston Parker's work cases of this kind quoted, and the belief expressed that they are examples of the direct contagion of secondary syphilis. This belief, once so commonly entertained, has also, upon similar kind of evidence, and in spite of the opinion of Hunter, and the demonstrations recently attempted by M. Ricord, been adopted by MM. Biett, Lagneau, and Cazenove of Paris, M. Waller of Prague, and, in this country, by Mr. Whitehead of Manchester, Dr. Stark of Aberdeen, Mr. Hey of Leeds, and even by Mr. Lawrence. I have little doubt but that all these excellent observers have been led astray, and that their cases are to be explained by the principle which is the subject of this paper. All of them acknowledge their opinion to have been formed upon cases which are rare and quite exceptional. Mr. Parker says that he has seen several, but quotes only two. Dr. Stark mentions only three, while neither Mr. Hey nor Mr. Lawrence gives any. Besides the theory of the possibility of contagion by secondary disease only, two others have been brought forward to account for the communication of constitutional taint by cohabitation. One of these, belief in which is expressed, among others, by Dr. Harvey of Aberdeen, is, that the seminal fluid of a diseased man is capable of directly infecting a healthy woman; and the other, which originated, I believe, with Mr. Whitehead of Manchester, is, that the secretion on the surface of the glans penis and prepuce of a man who has at some former, and, perhaps, distant time, had syphilis, but in whom no evidence of existing lesion can be detected, is for indefinite periods, and under rare and peculiar conditions, capable of conveying contagion without causing sores. These conjectures, which are adopted to the full by the reviewer of Mr. Whitehead's work in the *Medico-Chirurgical* in 1852 although very improbable in themselves, were ingenious and plausible enough under the circumstances under which they were made, that is, in default of any better explanation. There is, however, but little doubt that they may now be safely set aside. To whom should be awarded the honour of having been the first to suggest what I hope to prove is the true explanation, I am at some loss to state with confidence. It was first mentioned to me many years ago by Mr. Paget, and he then spoke of it as an article of creed which he had long held. In the lectures of M. Ricord, published in 1848, occurs the first notice of it in print with which I am acquainted(a). Since then it has been alluded to in published papers as probably true by Dr. Harvey, Mr. Acton, M. Diday, Dr. Tyler Smith, Dr. Fowler, and Dr. Balfour, and probably by some others whose writings have not fallen under my notice. So far as I am aware, however, it has been spoken of by most of these writers as a matter of conjecture and probability only, and but little has hitherto been done either to afford proof of it, or to estimate the frequency of its occurrence. In now undertaking this task, the first natural division of my labour will be to show that it is *probable*.

Contamination by the Fœtus probable.

The well-established anatomical fact, that the structure of the placenta does not admit, as formerly held, of any real admixture of the maternal and fœtal bloods, and that, where nearest to each other, two layers of cells intervene to separate the fluids, might at first sight be thought to militate against the probability of the fœtus being able to influence the fluids of its parent. There are, however, abundant facts to prove that not only does the nutritious plasma pass by imbibition through this membrane, for the supply of the fœtal wants; but that morbid poisons, as that of small-pox, for instance, may in the same manner be communicated from the mother to the ovum. Why, then, should not the converse be possible? Why should not a structure, which is permeable in one direction, be so also in the other? And here some important observations in cattle-breeding come in support of the theory. It is well known amongst graziers that a cow or mare which has once been impregnated by a male differing markedly from herself in species, will afterwards produce to males of her own breed offspring resembling more or less the former. A notable instance of this, quoted in the *Philosophical Transactions*, happened in the case of an Arabian mare of Lord Morton's, which, having had a hybrid foal to a quagga, subsequently on

(a) This statement requires alteration. Since it was written I have learned (and have to acknowledge my obligation to Dr. Montgomery, of Dublin, for directing my attention to the circumstance) that this theory is mentioned by M. Gardien, in his Traité des Accouchements, so far back as 1824. It is also referred to by Dr. Ramsbotham in a published lecture delivered in 1835. Dr. Montgomery further states that he had, upon the strength of evidence furnished under his own observation, arrived independently at the same conclusion before he was aware of its having been mentioned by these authors. The support which such a fact, coming from such an authority, gives, is extremely valuable to the theory under discussion.

three occasions brought forth to well-bred horses offspring which, in stripes on the shoulders, etc. bore unequivocal resemblance to the quagga. The most probable manner of accounting for this is that suggested first by Mr. Macgillivray, in the *Aberdeen Journal*, and quoted in an excellent paper on this subject by Dr. Harvey of Aberdeen, viz.: that the blood of the mother had become contaminated by her first pregnancy, and had acquired some of the peculiarities of the fœtus which it had nourished. The deterioration in temper and spirit, which is known to ensue to a mare in foal by an ass, is further strong evidence in corroboration of this opinion. In all probability, the placenta performs to the fœtus the functions of stomach, lungs, kidneys, liver, all in one. By its means, not only is the nutritive material absorbed and prepared, but the excreta and effete elements of the fœtal body are eliminated and cast off into the maternal blood. Granting this, there is no difficulty whatever in the understanding how an ovum, whose fluids were affected by specific contamination, would be likely to communicate the same taint to the mother, in whose womb it lay. And this, perhaps, is all the proof the subject is at present susceptible of, unless, indeed, we were to reason in a circle, and adduce, as evidence that the fact is so, the following cases which are believed to be examples of it (b). There are but few diseases transmissible hereditarily with sufficient regularity, excepting syphilis and gout, to be likely to furnish instances of its occurrence; and, with regard to the latter, I am not aware that as yet any observations have been made.

Tabular Report of Cases.

The tables which accompany this paper (c) contain abstract reports of 50 cases which have fallen under my observation during the last six years, in which I believe that constitutional syphilis was communicated to mothers by the agency of diseased conceptions. Forty of them have occurred to myself, either in private practice or at the Metropolitan Free Hospital, and the remaining ten I saw at the Hospital for Skin Diseases, and am indebted to my friends, Messrs. Startin and M'Whinnie, for permission to make use of. And here let me state that these cases have been copied from miscellaneous note-books, and were for the most part originally recorded without any particular theory in view. The reasons which induce me to think that these fifty cases illustrate the occurrence referred to are the following:—

1. That such occurrence is, as just shown, possible and probable.

2. That in all the cases the patients had been pregnant, and that in all there was good reason to believe (if not absolute certainty) that the offspring had been diseased.

3. That all the patients manifested specific symptoms of syphilis, while there appeared every reason to believe their assertions that they had never suffered from primary disease. The evidence upon which, in each case, the disease was pronounced specific is given in a separate column in the tabular report, and more need not here be said respecting it. With regard to the probability of primary symptoms having been absent, I shall have to speak directly.

4. Because the train of symptoms was peculiar, being mostly of the late tertiary class, the secondary ones having, with but few exceptions, been wholly passed over.

5. Because, in many cases, there were distinct exacerbations of the symptoms during succeeding pregnancies.

6. Because, in most cases, the symptoms had commenced during pregnancy.

7. Because the cachexia of the mother had usually increased gradually, and, *pari passu*, with the number of pregnancies.

Sources of Fallacy, and Nature of Proof.

Now there is one source of fallacy to which all inquiries regarding venereal affections are exposed, which is of great importance respecting the value of these cases, and that is the possibility of wilful untruthfulness in the history given. In all the cases narrated, after a careful sifting of the history, I thought there was good reason for believing the patient's statement, that she had never suffered from primary disease. Now, there is not, I am quite willing to admit, any one single case in the report, on the freedom of which from all possibility of error in this respect I could speak positively. Nor do I believe that it would ever be possible to obtain a case the absolute accuracy of whose history should be such as to prove the question. Were the cases rare and exceptional I would disbelieve them; but when, on the contrary, we find numerous patients presenting under similar circumstances the same group of symptoms, and concurring to offer with the greatest positiveness the same account of their disease, we have, I think, fair ground for believing that they are truthful. The old adage, that "what every body says must be true," comes to be, I think, logically applicable. The cases resemble a bundle of twigs, each one of them slender, and alone easily broken, but when bound together of great strength. In many instances the women were mothers of syphilitic children, and already suspected the nature of their own symptoms; and in some I deemed it my duty to explain to them its real character in order to induce their persevering use of a course of treatment; while in others I had both husband and wife under care, in the hope of eradicating the constitutional taint. Now, with those who are fully aware of the real nature of their disease, and who freely admit it, there can, I hold, in the majority of instances, be no ground for concealment as to its early symptoms. A woman who is aware that in some way she has been infected by her husband with a venereal complaint, is not likely to deny to the Surgeon from whom she seeks relief the previous existence of sores on the genitals, had such ever occurred; and yet less is it probable that both husband and wife, while both admitting the correctness of the opinion given by their adviser as to the nature of their complaint, should combine to mislead and deceive him. And here it may not be beside the mark to again observe, that it is not the recognition of the occurrence of such cases that is novel, but only the mode adopted for explaining them. With very few exceptions, indeed, all modern Surgeons have admitted the occurrence of cases in which, by cohabitation, constitutional syphilis has been transmitted without the occurrence of primary symptoms. The following case, narrated by Mr. Langston Parker, is so much to the point that I am tempted to quote it. He gives it as an example of the contagion of secondary symptoms.

"A gentleman, who had suffered both from primary and secondary syphilis, married, after having been free from all symptoms for twelve months. Soon after this he had another eruption and sore throat; his wife became affected with the same eruption, excavated ulcers in the tonsils, and was prematurely delivered of a dead child in the sixth month of her pregnancy. Both patients lost their hair and eyebrows. On account of the obstinacy of some of the symptoms in both these cases, they were sent to me from a distance, to be treated by the moist vapour of mercury, under the use of which they both perfectly recovered. In this case the lady was more than once carefully examined; she was free from all evidence of primary disease, and had never suffered from the least irritation of the parts."—Case IV., page 36.

I would confidently class this as an instance of the conveyance of syphilis to the mother by the fœtus. In commenting upon it, Mr. Parker, with his usual sagacity, points out a circumstance to which I have already adverted, and which was many years ago remarked upon by Dr. Wallace, namely, that when syphilis is thus derived, the symptoms correspond pretty exactly in the communicant and receiver. In other words, the woman to whom syphilis is communicated without the intervention of a primary sore, does not go through the *rôle* of phenomena which she otherwise would have done, but shows at once pretty exactly the same kind of symptoms that her husband does. The following is a case in point:—

James T., a master hairdresser, aged 24, came under my care in December, 1854, on account of syphilitic condylomata on his tongue and over the pharynx, from which he had suffered more or less for seven months. He told me that he had had a sore on the penis about sixteen months ago, had been salivated, and, as he thought, perfectly cured. Four months after the complete disappearance of the sore and of the secondary rash he, disregarding a very small abrasion on his tongue, had married. I examined his penis, and found it perfectly sound, not even a trace of cicatrix being visible. He had been married six months, and his wife had remained quite well. She was stated to be now pregnant. On his second visit he stated that his wife had miscarried, and that she was

(b) There is, indeed, the almost crucial experiment of injecting the fœtus of some living animal with a poisonous fluid, and observing its effects on the mother. This experiment has been suggested to me by my friend, Mr. Savory, of St. Bartholomew's, but has, I believe, not as yet been tried. Its result would set the question at rest, and it is to be hoped that Mr. Savory will soon be able to pursue the investigations he contemplates respecting it.

(c) See Medical Times and Gazette for October 11, 1856, pages 366 et seq.

now very ill and had a rash out. His wife after this remained under the care of another Surgeon for four months; but in the middle of the April following I was consulted respecting her. Both her husband and herself were fully aware of the nature of the disease, and were anxious to afford me every means of information. I examined the wife, and could find no evidences of a sore having existed, and she stated that she had never suffered from any irritation of the parts whatever, a leucorrhœal discharge excepted. She had now miscarried twice. Before marriage, although delicate, she had been of good complexion, and not liable to any particular affections. She was now very cachectic, covered over the arms and chest with a papulo-scaly eruption, and had numerous large raised condylomata on the tongue, lips, and throat. The condylomata exactly resembled those from which her husband suffered; and the rash, excepting in being more copious, was also exactly like one which he had shown. Both the patients suffered most severely, and in each the symptoms were difficult of relief. Under treatment by the iodides and mercury, with the assistance of a prolonged residence on the sea coast, however, they ultimately regained their health.

Now, all Surgeons will admit that it is very rare indeed for a patient who has had primary syphilis to exhibit, in the secondary train of symptoms, any very close similarity to those of the person from whom she had contracted it; and, with such instances as the above before us,—and I could add many others,—I am quite willing to admit the truthfulness of the remark, that syphilis conveyed by contagion in its constitutional stage is far more likely to reproduce its exact self than when it spreads in the usual way by primary, sores. I am quite certain, however, that the thing is one only of degree; secondary syphilis reproduces its own resemblance more frequently than primary does so, but it by no means always does. To such an assertion I could adduce many exceptional cases. One rule is, however, I believe, easily demonstrable, and that is, the *class* of symptoms produced will resemble those of the infector; *i. e.*, that primary syphilis will produce primary syphilis, secondary secondary, tertiary tertiary, and so on. It would appear, indeed, that the contamination effected by the fœtus is not so much the communication of a specific disease, as the conveyance of a certain and determinate quantity of the poison, the effects of which will be in exact proportion to the dose. I do not think that the contagious materies thus derived tends to increase its power after being received. To illustrate my meaning: it is well known that the smallest conceivable quantity of vaccine lymph suffices to produce all the train of symptoms of cowpox, and so with the poisons of variola, of glanders, and of primary syphilis. Whoever receives these will go through the whole series of morbid phenomena which they tend to induce, modified, of course, somewhat by his original predispositions. To use the old mode of expression—and I know not that we can find a better—the poison acts as a ferment in the blood. We know also that this train of symptoms, once passed through, the blood, is, so to speak, exhausted of the pabulum on which the poison fed, and is no longer susceptible of disturbance from its influence. We are certain that this is so in smallpox and the other exanthems, and there is good reason for believing that it is also with regard to syphilis received in the ordinary way.

[To be continued.]

CASE OF ULCERATION OF A VERTEBRA IN AN INFANT.

By GEORGE LOWDELL, Esq.

(Read before the Brighton Medical Society.)

On the 27th of March last I was called to attend Mrs. D. in her confinement. The labour was perfectly natural, and the delivery happily accomplished. The child (the subject of this case) was a male, full grown, well developed, and would have been considered by every one to be a very fine baby. I have known both parents for some years; they are of the middle age, active in their business, and both are "remarkably healthy," so that there was no reason to suspect any constitutional taint. During the week after the confinement, when I visited the mother I generally saw the infant, which continued to thrive satisfactorily.

At the end of a month, the mother discovered a swelling in the child's back, as she was one morning washing or dressing it, and, as the swelling became daily more distinct, she requested me soon to see it. She could not attribute it to anything; to her knowledge, and from what she could gather from others, having the more immediate care of the baby, nothing had happened. The child had not fallen; no hurt had been inflicted; no bruise was visible; there had been no expression of pain; but there was a tumour over the dorsal vertebræ as large as a walnut, evidently containing fluid, and daily increasing in size.

There was some obscurity about the nature of this swelling. At first glance there was the idea of spina bifida; but it had arisen since the birth of the child, and squeezing it produced no manifestation of symptoms of pressure, add to which, the skin covering it was natural. It was conjectured—but a conjecture scarcely amounting to an opinion—that it might be abscess connected with bone. In this uncertainty the case was left to itself, and closely watched. In due time it considerably increased, and attained the size of a small orange, and the skin at the most prominent part became thin and inflamed, giving a favourable opportunity for passing a grooved needle into the swelling. This was done. Pus, apparently healthy, escaped, and, by means of the groove, so much was taken away as emptied the tumour, and left a distinct depression under the finger. As might be expected, the fluid soon collected again, and the tumour increased in size, till one morning the baby was suddenly seized with difficulty of breathing, and, at the same time, to the astonishment of the mother, the swelling altogether disappeared, and in a few hours the child died; three weeks after the first appearance of the swelling, and seven weeks after its birth.

The body was examined twenty-four hours after Death.—Externally there was nothing of the swelling to be seen; but when the finger was passed down the spine, a depression was found at that part which had previously been swollen. From this the skin was carefully dissected, and a probe inserted into the seat of mischief detected rough bone on the left side of the dorsal vertebræ, passed through it, and entered a cavity beyond it. So much of the spinal column was now removed as would include the diseased portion, and when this was taken away all doubt as to where the contents of the abscess had penetrated were cleared up, by finding the cavity of the left pleura filled with pus, which had escaped into it through an ulcerated opening near the diseased portion of bone. When the soft parts were dissected away from the part of the vertebral column which had been removed, it was found that the left transverse process, the lamina, and a great portion of the spinous process of one of the dorsal vertebra (the 5th or 6th) was completely destroyed by ulceration; but even with so much disease it was curious to see how nature had prevented further mischief, by leaving the posterior membrane (ligamentum subflavum) intact, and thus preserving the spinal cord in its entirety.

I have every reason to believe this child was perfectly healthy at its birth, even till a month old. At seven weeks of age the child dies. If it was as healthy as I considered it to have been, we have disease of bone passing through the stages of ulceration and abscess, and producing death in three weeks. I believe this to be a very rare occurrence.

The preparation taken from this case is preserved in the Museum of the Sussex County Hospital.

ON THE MAGNETISM OF THE BODY, AND THE PROBABLE MAGNETIC ACTION OF CERTAIN REMEDIES.

By SAMUEL RHIND, M.R.C.S.

The researches of Faraday have shown that nearly all bodies under the influence of a powerful magnet indicate different conditions of magnetic force, severally named magnetism and dia-magnetism. The bodies thus differently affected, are named magnetic and dia-magnetic. Iron is the most powerful of all the magnetic bodies. Now nearly all animal tissues are dia-magnetic, and Sir William S. Harris says that if a human body could be balanced between the poles of a magnet it would exhibit the latter species of magnetism. But may not this great electrician be wrong in such a conclusion? may not the iron in the body tend to neutralize the opposite magnetic force? and associated with it in such an action would be the

manganese, naturally combined with it in the blood, also all the nascent oxygen in the system, both magnetic bodies; while the nascent nitrogen, which exhibits neither of these two conditions, would act as zero to both these sets of bodies, and the forces connected with them.

From these considerations, may we not infer that the body is kept in a neutralized state as regards the magnetic influences of the earth and atmosphere, and if so, would not the disturbance of such equilibrium give rise to disease and functional derangement? Now to the existence of a relationship between these two sets of magnetic forces, and the phenomena of health and disease, we are further led by the therapeutic actions of the members of these two classes of magnetic substances; for while iron is our most worthy and powerful tonic, as is also manganese when associated with it, nearly all the members of the dia-magnetic group exhibit very opposite properties.

Thus bismuth, lead and silver are more sedative in their action; then we have the powerfully depressing sedative antimony; then the alterative resolvents, mercury and arsenic. But this subject is most strikingly illustrated by the curative properties of nickel, discovered by Dr. Simpson; these are strongly anti-periodic in cases of neuralgia, where the system will have been lowered by constant agony. Now this metal is, next to iron, the most powerful of the magnetic group, and is even capable of retaining a distinct polarity. It is further remarkable that bismuth and antimony, both of which are very powerful dia-magnetics, exhibit *very low* magneto-electric energy.

On reviewing the whole subject, there does certainly seem some ground for believing that the remedial agents found in these two groups of magnetic bodies do exercise, in some measure at least, remedial action on the body, from these peculiar properties under consideration, perhaps by tending to restore the magnetic equilibrium of the body disturbed by some morbid action, and thus, if I may so say, render it astatic to the earth, and thereby bringing back health.

I offer these few remarks not dogmatically, but rather to direct attention to a subject of great interest. For however much the question of the relationship between magnetism and the healthy body may have ceased to be made a practical inquiry among Medical men, both from the difficulty of the subject and from all the absurdities of animal magnetism and electro-biology, yet it must occur to every thoughtful mind that a force which exercises such a tremendous influence on the economy of the earth, probably also on the entire universe, if the views of Faraday be true, cannot be without a very powerful one on the human body; and if so, it becomes at once a fruitful source of investigation for the practical physician; and if the subject from such a point of view be successfully carried out, then it will be wrested from the hands of the charlatan who imposes on the credulous with his ideas, the more dangerous because containing a figment of truth.

Burley, near Otley, Yorkshire.

INCOMPLETE EXTERNAL INGUINAL HERNIA.

By ALFRED J. WOOD, F.R.C.S.
Surgeon to the Gloucestor General Hospital.

I BEG to be allowed to record the following case through the medium of the *Medical Times and Gazette*:—

W. C., farm-labourer, was admitted into the Hospital on the 28th of November. He stated that he had had a rupture for sixteen years, which, during the earlier portion of that period, used to descend into the scrotum; it had not done so, however, for several years past, but had risen under and above the truss which he was in the habit of wearing.

On the morning of the 26th, while he had on his truss, the hernia became strangulated. When admitted the symptoms of strangulation were decided but not severe.

The tumour appeared unusually high, quite above the fold of the right groin; flattish, diffused, and soft. The operation was performed on the night of his admission into the Hospital.

The hernial sac presented itself immediately beneath the tendon of the external oblique.

On laying it open the intestine was found to turn upwards after passing out round the lower border of the internal oblique and transversalis, which formed the stricture.

This having been divided the intestine was returned after a rather tedious manipulation.

The case has done well. In the heading of it I have adopted the nomenclature of Mr. Lawrence.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

SERIES OF FIVE CASES IN WHICH OPERATIONS FOR ARTIFICIAL ANUS WERE PERFORMED.

THE recent occurrence of a case in University College Hospital in which Amussat's operation for artificial anus was performed, offers us a good opportunity for placing in juxtaposition with it the particulars of several others of like nature which have occurred during the last year or two. If we may here again cite one which we recorded some years ago, in which Mr. Moore, of the Middlesex Hospital, had been the operator, we shall have examples of each of the four several conditions under which this proceedure may become advisable.

Case 1.—A woman, aged 55, under care on account of a cancerous tumour of the ovary and uterus, had obstinate constipation from pressure of the mass upon the rectum. After nine days' unrelieved symptoms, her condition became urgent, and Mr. Moore determined to open the colon in the loin. The gut was easily reached, was found distended with fluid fæces, and was opened. The operation afforded most complete relief, and the patient survived it in comparative comfort for eight days, dying ultimately of the exhaustion consequent on the original disease. (For full details, see *Medical Times and Gazette*, December 24, 1853, page 653.)

The four conditions alluded to are—

1. Obstruction of the bowels from stricture of the rectum or lower part of colon.
2. Obstruction of the bowels from the pressure of a tumour upon the rectum or lower part of colon.
3. Congenital obstruction of the bowels from imperforate rectum high up.
4. Cases of ulcerated cancer of the rectum without stricture.

In cases of the first three classes the object is plain; and in those of the first two, other treatment having been exhausted, the Surgeon's duty in respect to interference is almost as clear as in the instance of strangulated hernia, since the patient must otherwise almost inevitably die. In those of the third it may be doubted whether to dissect up in the course of the imperforate gut from the pelvic outlet is not always a preferable procedure to opening the bowel in the loin. One or the other operation ought, however, in all cases to be resorted to. The fourth class of cases differs *toto cœlo* from the others. In these there is no obstruction, and no accumulation of fæces, but from the state of ulceration of the outlet or lower tract of the bowel, the patient suffers most excruciating agony during the passage of its contents. To relieve this, a false anus is formed higher up. These are not cases of imperative necessity for interference; they are those, in which, from the circumstance that the gut is usually empty, the operation is difficult of performance and attended with additional risk, and in which, after putting the patient in possession of the facts of his case and its prospects, he may be allowed to be his own judge. There is one point, however, which in this class especially it is the Surgeon's duty to explain fully, and that is, that an anus in the loin is attended with but very slight inconvenience. All who have had personal experience in this matter agree in testimony as to this circumstance. When once the artificial outlet has become established, the patient by wearing a suitable spring compress over it is in a state of comfort. The fæces can be retained and evacuated at will, and excepting that during defecation he must assume a somewhat recumbent instead of a sitting posture, his inconvenience is but slight. This result, so different from what might be anticipated, will properly exercise a large influence on the minds both of

patient and surgeon, and ought to be more widely known in the Profession than it is.

The first case to which we shall ask attention, is one in which the operation was performed very successfully, on account of stricture (probably malignant) of the rectum.

LONDON HOSPITAL.

Case 2.—STRICTURE OF THE RECTUM—OBSTINATE CONSTIPATION—AMUSSAT'S OPERATION—RECOVERY—DEATH TWO MONTHS AFTERWARDS.

(Under the care of Mr. CURLING.)

Eliza Pope, aged 40, was admitted under the care of Dr. Davies, February 24, 1856, suffering from obstruction of the bowels. No tubercular or cancerous tendency could be detected in her family. She had been married nineteen years, and was the mother of ten children. She had been accustomed to sit for fourteen or sixteen hours a-day at her work, as a tailoress. She had always had delicate health, and her labours had usually been attended with considerable uterine hæmorrhage. For several years she had experienced difficulty in defæcation, and irregularity in the action of the bowels, suffering at one time from diarrhœa, at another from constipation. She had passed scybalous motions for the preceding twelve months. A week or two before her last confinement, she suffered from sickness, constipation, and severe abdominal pain, which were relieved in a few days. On the twentieth day prior to admission, the bowels became troublesome; but she says she passed small quantities of fæces, undiminished in size, and not of unusual hardness, but that defæcation was attended with difficulty. Since that time she had passed only a small quantity of slimy matter, but no blood. She had had enemata and aperient medicines.

On admission she was suffering from violent and frequent sickness, and intense abdominal pain. She was ordered an enema, morph. gr. ½, sinapism to the abdomen, ice to suck, and arrowroot with brandy.

25th.—Mr. Curling saw her, and discovered a very hard close stricture of the rectum, about two or three inches from the anus; a great deal of induration could be felt per vaginam.

26th.—Amussat's operation was performed, the patient being under the influence of chloroform. On division of the fascia transversalis, a quantity of fat was exposed, and beneath this the peritoneum was brought into view; but, on careful search and after dilatation of the wound, the colon could not be found. The peritoneum was then opened, the colon was found contracted and compressed by the distended small intestines towards the spine; it was brought forward, opened, and its edges were stitched to those of the integumental wound. Opium was freely administered.

29th.—In addition to discharge from wound, fæces passed per anum.

March 7.—She was troubled with forcing pains, which were relieved by a suppository. There was a good deal of slimy and bloody discharge per anum, but all her motions passed through the wound, which had healed around the artificial anus.

April 5.—A truss, consisting of a hollow pad and elastic bandage, contrived by M. Bourgeaud, was applied to the artificial anus, which seems to cause little inconvenience.

9th.—She left the Hospital against advice; she was then sick at times, and looking cachectic. She died in about eleven days (on the 20th), having survived the operation nearly two months. The husband would not allow a post-mortem examination.

In this case there could be no reasonable doubt that the patient's life was protracted during the whole two months in direct consequence of the operation. It is interesting to note that no ill-consequences followed the wound of the peritoneum which occurred during the operation. The free opium treatment probably averted these.

We are indebted for the notes of this and the next following case to Mr. Aveling, Mr. Curling's dresser at the time.

Case 3.—CONGENITAL DEFICIENCY OF RECTUM—AMUSSAT'S OPERATION—FREE EVACUATION OF MECONIUM—DEATH NEXT DAY—AUTOPSY.

—— Smith, aged 4 days, was brought to the Hospital, May 11, 1856. It had suffered continual sickness since birth, and had passed nothing per anum. The abdomen was tense. On examination a membrane was found just above the anus; this was divided with a bistoury, but the finger seemed to pass up into the pelvis, external to the peritoneum, and not into the gut. No motion passed. The next day Mr. Curling, with some difficulty, performed Amussat's operation; the peritoneum was inadvertently opened; the colon was found undistended; the gut was opened, and its edges were stitched to those of the integumental wound.

At 10·30 p.m. the child had taken the breast freely, and cried when moved. The abdomen was less tense; meconium had passed freely.

May 13.—She died at 10 a.m. to-day, having survived the operation about sixteen hours.

A small quantity of turbid serum was found in the peritoneal cavity. The cœcum, ascending, and transverse colon were greatly distended. The sigmoid flexure was distended into an almost globular sac, and beyond this, in the situation of the rectum, was a small impervious cord. The other pelvic viscera were normal.

UNIVERSITY COLLEGE HOSPITAL.

Case 4.—CANCER OF THE RECTUM—AMUSSAT'S OPERATION FOR ARTIFICIAL ANUS—DEATH—AUTOPSY—REMARKS.

(Under the care of Mr. ERICHSEN.)

Stephen Cook, aged 45, a very cachectic man, was admitted on account of cancerous disease of the rectum, on November 14 of the present year. His symptoms dated back about two years, and amongst the earliest were attacks of profuse hæmorrhage. Fifteen months ago, at St. Mark's Hospital (for fistula), he had been told by Mr. Salmon that he had cancer, and although at a much later period a Surgeon at the "Cancer Hospital" had given a different opinion, yet he also, when told of the former diagnosis, had coincided with it. For eighteen months past his disease had disqualified him for work, and for nine months he had been almost confined to his bed. His sufferings had been most extreme. There had been no indications of material narrowing of the canal, and although for some months the size of the fæcal masses voided had been somewhat smaller than natural, yet no obstruction had ever occurred. With the help of sulphur, castor oil, etc., he had kept the bowels regular, but their evacuation had for long been always attended by intense suffering. Within the rectum, as high and higher than the finger would reach, was one continuous surface of cancerous ulceration. The introduction of the finger caused great pain. He had been accustomed to take opium largely. There were no evidences of gland-disease, or, indeed, of any other than the affection of the lower bowel. As we have already said, he was in a state of cancerous cachexia, emaciated, and very pale.

In this miserable condition from hopeless disease, Mr. Erichsen determined to try what surgery could do for the mitigation of his sufferings, and proposed to him to make an artificial anus in the loin, and thus prevent the passage of the fæces over the cancerous ulcer, and the pain attending it. To this the man most eagerly assented. He had been in the Hospital about a week before it was put in practice, and although everything that could be suggested had been done for his relief, yet it was evident that he was rapidly sinking, and would not live long. Death from pain appeared to be imminent; to diminish the amount of this mortal agent was the object of the Surgeon.

Mr. Erichsen, before proceeding to operate, explained, in some excellent clinical remarks, the objects and nature of the procedure contemplated. The plan of opening the colon in the left loin, in cases of cancerous disease of the rectum, had first suggested itself to the mind of Amussat, from his having witnessed the intense sufferings which two of his patients (the celebrated artist Talma and the Physician Broussais) had undergone during the slow advance of death from that affection. It had for its object, not the relief of obstruction, but simply the mitigation of pain, by preventing the irritating fæces from passing through the diseased tract of bowel. To patients affected with this disease, the pain caused during defecation is the most intolerable of their symptoms. The first case in which Amussat had performed the operation now bearing his name, was one very similar to the present, excepting that the patient was in a much better state of health. In it great relief to the sufferings of the patient were obtained, and the woman lived after-

wards for about a year. It had since been performed with varying success in from twenty to thirty cases.

The operation was performed on November 19th, the man being at the time under the full influence of chloroform. Commencing at a point two fingers' breadth above the ilium, and a like distance from the spinous processes of the vertebræ, Mr. Erichsen carried his incision outwards parallel with the crest of the ilium for a length of four inches. The superficial structures having been divided, the white line marking the outer border of the quadratus lumborum was distinctly brought into view. This having been cut through, and the muscle notched, some difficulty was encountered in finding the gut, the latter being contracted and of very small calibre. After a little search, however, the bowel at a part uncovered by the peritoneum was discovered, and a needle armed with whipcord was passed into it. Being well drawn forward, the gut was next opened by scissors. No fæces escaped, but the operator's finger having been passed down, it came back soiled. The edges of the open gut were now by four points of suture secured to those of the wound. As soon as the effects of the chloroform were passing off, the patient having been removed to his bed, a full dose of opium was given.

The man never rallied well after the operation, and although there were some irregular symptoms of improvement he sank, and died at midnight of the succeeding day.

Autopsy.—The opening into the colon was found to have been made without any injury to the peritoneum, and was in every respect as had been wished. The gut at this part was contracted, and contained only scybalæ. The part opened was about 15 inches above the sigmoid flexure. There were evidences of commencing inflammation of the peritoneum generally, consisting of diffused congestion and a small quantity of recent lymph. The condition of the rectum was as had been expected,—that of very extensive cancerous ulceration. Excepting these the only other important morbid state observed was a very advanced fatty degeneration of the liver and both kidneys.

We have condensed the above account from the very full and detailed notes of the case taken by Mr. Jeaffreson, Mr. Erichsen's Clinical Clerk. Considering the man's very low state prior to the operation, and that he had unsuspected disease of both kidneys, there is nothing at all surprising in his sinking from the immediate effects of the operation. The occurrence of peritonitis so directly afterwards in a case in which no injury had been inflicted on the peritoneal membrane might be considered remarkable, were not the powerful predisposing influence of renal disease to such inflammation borne in mind.

The next and last case in our series is one in which the propriety of performing Amussat's operation was discussed, and in which, however, that of opening the peritoneal cavity from the front of the abdomen was preferred. As the autopsy showed, the state of things was quite hopeless as to relief from any operation, the bowel having ulcerated from long distension, and become so soft that the finger, even during the procedure, readily lacerated its coats. Had it been performed earlier, Amussat's operation might possibly have afforded temporary benefit, and the case would appear to have been a suitable one for it.

LONDON HOSPITAL.

Case 5.—INTESTINAL OBSTRUCTION—GASTROTOMY—DEATH—AUTOPSY.

(Under the care of Mr. LUKE and Dr. GIBBON.)

The following narration is from the pen of Dr. Gibbon:—William Conn, aged 60, admitted into the London Hospital under my care on the evening of March 22, 1856, was a short, not unhealthy looking man, of spare habit. He was suffering from sickness, and stated that his bowels had not been moved for two weeks. His skin was natural; pulse 84, soft and quiet; tongue moist and thinly furred. Abdomen was very full, prominent, and tense; its walls were elastic; no fluctuation, induration, or resistance to the hand could be detected over any part of its surface. Percussion elicited good resonance from every part, except from a small space in the right iliac fossa. He complained of a constant "writhing" pain, just below and a little to the left side of his navel, "as if his bowels were struggling;" and said that his stomach would retain neither food nor physic. Urine abundant. He stated that his bowels had been regular until two months ago, when they became relaxed four or five times a-day. The stools were not observed, but were always passed with considerable straining and tenesmus. At first he had pain in his right groin; afterwards it shifted to the middle of his belly, where it assumed a forcing character, and would, at times, extend down towards his testicles. In consequence of a debauch three weeks ago he vomited a good deal; and his bowels from being relaxed gradually became constipated. He placed himself under the care of Mr. Heelis, of Limehouse, who, after exhibiting strong purgatives and enemata, sent him to the Hospital. I had an œsophageal tube carefully passed per rectum, which, after about a foot had been passed, recoiled from the anus, so as to lead me to infer that it had curved on itself. A less flexible, elastic bougie was next readily passed to the extent of nine or ten inches, when steady pressure was maintained on it for some time, but it recoiled as soon as the pressure was removed. On the end of the bougie was some bloody, purulent matter, which, from its general as well as microscopical appearances, I judged to be indicative of cancer. Warm water was then carefully injected into the rectum, but only about a pint and a-half was retained. From this examination, as well as from the history of the case, I concluded that the obstruction was caused by cancerous stricture at the lower part of the sigmoid flexure of the colon, and determined that only mechanical remedies should be had recourse to.

I directed that the patent should be placed on his back in a warm bath, and that by means of Birne's tube and Reid's stomach-pump, the water of the bath should be forcibly injected into the rectum. The clinical clerk informed me that the water speedily returned almost colourless. The next day, March 23rd, I found that the patient had passed a good night, and that, with the exception of vomiting after his meals, he suffered from no urgent symptoms.

The bougie was again passed by the House-Surgeon, Mr. Ross, in my presence, and gentle pressure was maintained for about ten minutes, but with no other result than the day before, except that it gave more pain. About a pint and a-half of water was then injected, which was immediately expelled.

That an operation which now appeared to me inevitable might be as little delayed as possible, I requested my surgical colleague, Mr. Luke, to see the patient. He did so next day, and advised the bougie to be again passed, and one grain of powdered aloes to be given every four hours. The bougie was passed with the same effect as on the former occasion. The aloes increased the amount of sickness.

March 25th.—The man had passed a bad night; had obtained no relief. The vomiting had been frequent and distressing; the matter vomited has a slightly stercoraceous odour. At noon I had a consultation with Mr. Luke, and expressed my view as to the nature and seat of the obstruction, and recommended that the descending colon should be opened from the loins. Mr. Luke agreed with me as to the pressing necessity of an operation, but having doubts as to the seat of the obstruction, and for other surgical reasons, he preferred to make an opening in the left groin. The patient readily consented to the operation. Accordingly, at two o'clock, without administering chloroform, Mr. Luke made an oblique incision in the left groin, commencing about two fingers' breadth to the right of the anterior superior spinous process, and extending for about three inches towards Poupart's ligament. On opening the peritonæum some gas escaped, together with some turbid, fœtid serum. On introducing the finger, fæces came through the wound, and the finger was passed into a bowel distended with fæces. Two portions of intestine then protruded, one at the lower and outer part of the wound, which was clearly made out to be large, and one at the upper and inner part, which was small intestine. The former was supposed to be the sigmoid flexure, and was so adherent that it could not be pulled forward. On passing the finger along the intestine, it was introduced into the gut, and below the opening a dense thickened mass could be felt. The bowel could not be stitched to this wound in consequence of the adhesions, and was therefore left *in sitû*. A suture was placed in the upper part of the wound. The man took half-an-ounce of wine with tinct. opii ʒss., and the wine was repeated every half-hour, with tinct. opii ♏ xv. for the three first doses. He continued to do well until

4.30 p.m. the next day, when he became suddenly worse, and died at 5.30 p.m.

An inspection of the body was not permitted by his friends, but by enlarging the wound in the abdomen the House-Surgeon made the following examination: Protruding through the wound were two pieces of intestine, one "large" at the lower and outer part, the other "small" at the upper and inner. When the finger was introduced below the piece of large intestine (the sigmoid flexure of the colon), it passed into the intestine which was ruptured during the operation. This turned out to be the cæcum, very much dilated with hardened fæces, dark in colour, soft, and lying partly in the left iliac fossa, and partly in the pelvis. The ascending colon was dragged over to the left side, and was attached in one part by very firm adhesion to the lower part of the sigmoid flexure of the colon. This intestine (sigmoid flexure) was healthy, except at its lower part, just at its junction with the rectum. Here was a stricture, which would, however, admit the index finger. On laying open the intestine, the mucous membrane was found to be red and corrugated, while there was a general thickening and nodulated condition of the submucous tissue. Above the seat of stricture was an ulcerated opening, having irregular and ill-defined edges, through which a probe passed easily into the ascending colon, so that a distinct communication existed between the sigmoid flexure of the colon, just above the seat of stricture and the attached part of the ascending colon, where the opening had white cicatrized edges, and appeared to be the size of a pea. The other portions of the colon and small intestines appeared to be healthy.

HOSPITAL NOTES.

On the beneficial Effects upon intractable Strictures of opening the Urethra behind them.—The benefits of the plan of treating bad strictures by procuring a free escape for the urine behind the strictured tract has been well illustrated by a case now under the care of Mr. Cock, in Guy's Hospital. The end referred to may be secured either by puncture of the bladder, or by opening the membranous urethra, preference for one or the other mode being often optional with the Surgeon. Of course when no retention has occurred, and the bladder is kept empty, puncture of it cannot be resorted to; and in this class of cases, as well as those in which the perineum is the seat either of abscesses or sinuses, the perineal operation is to be preferred. The clinical fact on which the practice is founded is, that strictures, when once relieved of the irritation of the urine passing over them, spontaneously soften down and dilate. The plan, although much ridiculed by some, is a great favourite with several of our most practical Hospital Surgeons, among whom we may mention Mr. Cock, Mr. Wormald, and Mr. Simon. Mr. Wormald terms it giving "the diseased urethra a holiday," and is very warm in his commendations. Mr. Cock and Mr. Simon we have often seen resort to it. In cases of impassable stricture, its advocates regard it as far safer practice than the attempt to cut through the stricture without a guide, a procedure acknowledged to be one of much difficulty and uncertainty. Mr. Cock's case referred to may be briefly outlined as follows:—A man in fair health, aged 30, had been for five years the subject of a long and most intractable stricture. His penis, etc., at the time of admission, was seamed with scars of incisions made for the relief of extravasation, and he stated that he had repeatedly suffered attacks of retention. The urine merely dribbled away, and there were numerous fistulæ in the perineum. After some weeks' patient treatment Mr. Cock still found himself unable to pass the smallest instrument. The mass of induration around the urethra was very large. The man was now put under chloroform, and with a straight-bladed knife Mr. Cock opened the urethra by a single plunge, (a) just anterior to the prostate. No staff was in the urethra at the time, and no attempt whatever was made to divide the stricture. A female catheter was passed by the wound into the bladder and retained a few days. No urine whatever flowed by the penis for upwards of a fortnight, and at the end of this time a No. 5 catheter was pretty readily introduced through the stricture. No case could better prove the principle that strictures, when relieved from irritation, do really soften and spontaneously dilate. There is, indeed, whatever some may have held, nothing surprising in the circumstance that they should do so. In cases of Amussat's operation, performed for stricture of the rectum, the latter has been known to dilate afterwards very considerably, and the effect of tracheotomy, in relieving chronic laryngeal disease, is well known to all surgeons.

(a) The term "plunge" may possibly be misunderstood. All that it is intended to imply is, that the knife should be pushed steadily on in the median line, until the urethra is reached, and that there should be no side cutting. The forefinger of the left hand should be in the rectum, just touching the anterior edge of the prostate, and should serve in a certain sense as a guide to the knife. The making but one cut with the knife secures that the wound shall be of conical shape, its apex being the urethra. The circumstance that the urethra is dilated behind the stricture much facilitates the finding of it. The careful keeping the knife in the median line is the one important point in the operation.

Born with Teeth.—Within the last few months, two examples have occurred among Mr. Hutchinson's out-patients at the Metropolitan Free Hospital, of children born with teeth. In the last, a fortnight ago, an infant of 3 weeks old was brought, on account of an inflamed mouth. Something white being observed lying in the gum of the lower-jaw, a little to the left of its symphisis, it was touched with forceps, and a small, well-formed tooth, quite loose, was removed. A gush of pus flowed, and the tooth had evidently been in process of extrusion by an abscess. The mother stated that she had observed it soon after birth, but had never suspected its real nature. The child was delicate and puny, but presented no other abnormities. In this instance it was curious to note, that the tooth had no fang, and that its crown was hollow, suggesting that the premature throwing off had rather been from inflammation of its pulp cavity than from precocious development.

The second case was one of more interest. A fair, delicate, little girl, aged 3, was brought, on account of an eruption on the scalp, but her mother was also very anxious to have an opinion as to a peculiarity of her teeth. She had been born, it was stated, with two teeth in the lower jaw, which were so long and sharp that they irritated the upper lip, and their removal became a matter of necessity. No others had been reproduced. The gum, where the two central incisions should have been, was thin and low; the teeth by its side were perfect. The point respecting which the family were naturally anxious was, as to whether the child would ever have any teeth in this part. The teeth originally extracted were described as having had good fangs, and there seemed nothing in the fact of their having been prematurely developed to at all preclude the hope that they would reappear on the occurrence of the second dentition.

Abscesses about the Shoulder-Joint.—The particulars of two very interesting cases of deep-seated abscess about the shoulder-joint, occurring in St. Bartholomew's Hospital, have been sent us by Mr. E. J. Earle, Mr. Stanley's House-Surgeon. The subject of the first was a well-nourished man, aged 48. The inflammation had existed three weeks; and when admitted, the swelling, which lifted up the deltoid and pectoralis muscles, was very great. Mr. Coote opened the abscess in the line between these two muscles, where the matter was most superficial, and a large quantity escaped. In the second, a healthy-looking man, aged 80, was attacked while under care on account of syphilis, by what was supposed to be rheumatism in the shoulder. The swelling and tension became very great; and within a week fluctuation was apparent under the deltoid, scapular, and pectoral muscles. The part where pointing was in process was above the clavicle, and the important practical question was now mooted, as to whether it were better to make an incision here, or to attempt to establish an opening in a more depending position. It was determined to prefer the latter; and by a very deep incision the abscess was reached at the lower border of the scapula. Only a few drops of pus flowed from this incision, and a second over the clavicle was accordingly made; from the latter more than a pint of pus at once flowed. Some matter subsequently flowed from both openings; but by far the greater part was by the upper one. The patients in these cases are both of them still under care. The question as to whether abscesses should be opened in the part at which they point, or in that most depending, is one which often occurs in practice. Few Surgeons have not, we suspect, met with cases similar to the last of the above, in which, after encountering some risk in the endeavour to secure a depending opening, they have, notwithstanding, been compelled to take a hint from nature, and make an incision where pointing was apparent, even although at much greater elevation.

Recurrent Fibroid Tumours in connexion with Tendons.—In the case of this class under the care of Mr. Wordsworth in the London Hospital, which we mentioned three weeks ago, there is already evidence of tendency to reproduction of the growth. In the lower part of the wound, which is yet unhealed, is a growth of granulations of a most suspicious appearance. We believe that Mr. Wordsworth intends to apply caustics.

The Origin of Erysipelas.—Dr. Thomson, in his last monthly report on the health of Marylebone gives the following striking evidence supplied by Dr. Corfe as to the origin of erysipelas:—"For several years erysipelas constantly occurred (5 cases within a very brief period) in an accident ward on the ground floor of the west wing of the Middlesex Hospital, but always on the eastern side of the ward. The ward (Clayton's) is the largest in the Hospital, and therefore deficiency of breathing space, a common exciter of erysipelas, was scarcely to be suspected as the cause of the maladies. By careful observation it was noticed that the beds most liable to be affected were directly over the common dust-hole of the Hospital, which was situated in a vault in the western front area, the effluvia from which escaped and entered the ward by the window. By properly securing the dust-hole the further escape of the noxious exhalations was prevented; but some time afterwards two cases of erysipelas having occurred directly over the vault, it was found that the dust-hole had been accidentally open. Since that period, I am assured that for nearly four years no case of erysipelas has occurred in this ward."

Expected Operations.—We have not been informed of any operations in prospect during the next few days.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

ANSWERS.

Nos. 151 and 163.—The Microscopical Character of Cancer, and the Relation of Cancer to Tubercle.

Permit me to answer Queries Nos. 151 and 163 in your Journal. An answer to each may be found in the works on Cancer of my friend Mr. J. Zachariah Laurence.

No. 151, "The Microscopical Character of Cancer" may be found briefly and distinctly enunciated at page 66 of Mr. Lawrence's "Diagnosis of Surgical Cancer."

No. 163, "The Relation of Cancer to Tubercle." Under this head Mr. Laurence observes, in his "Illustrations of the Pathology of Cancer:" "I have long been struck, when listening to the melancholy tales of cancerous patients, how often one hears that some of their relatives have died of consumption. . . . . All I will say is, that of 51 cancerous patients who have fallen under my own observation, I find that no fewer than 14 (upwards of a fourth) knew of a parent, a brother, or a sister, having died of phthisis." The above is the only numerical solution I am aware of to the query of your correspondent, "A London Physician."

I am, &c. E. Grasemann, M.D.

11, Air-street, December 13, 1856.

No. 163.—Relation of Cancer to Tubercle.

This is a matter that has been considered and noted upon at the Cancer Hospital; and the result of observation and inquiry is, that there is no connexion or alliance between the two diseases.

As phthisis and cancer, or scrofula and cancer, may be seen in the same individual in very rare instances, so very occasionally it appears that the blood relations of a cancer patient have been the subjects of phthisis or scrofula; but only in a ratio, or even it may be confidently said diminished ratio, with the like combination in the histories of patients suffering from any form of disease. I am, &c.

Upper Berkeley-street. T. W. C.

No. 161.—The Gold-headed Cane.

If your correspondent from Bath saw the two drawings by Rowlandson which I exhibited there at the meeting of the British Archæological Institution in August last, he may remember the position of the Cane appeared more as indicating importance; but many of the old Canes, and particularly one which I well remember (the late Dr. Solander's), had a sort of vinaigrette at the top, which, no doubt, had contained some antiseptic, which was used when visiting a patient under contagious disease—just as I had (during the plague at Malta in 1813), a bag containing camphor hung round my neck. I deeply regret not preserving Dr. Solander's cane, and wish a portion of our Professional museums was specially set apart for the materials of by-gone days, to be received and recorded.

I am, &c. W. T. Iliff.

Newington Butts, December 13, 1856.

No. 161.

Will you allow me, in reply to your correspondent "Curiosity," to state that the gold head of the cane carried by the ancient Physician was generally of some considerable depth, and of hollow formation, making in fact a box, with a lid perforated at the top in different places, like that of a pepper-castor. In this cavity was placed a quantity of dried and finely-powdered aromatic herbs. Before entering the chamber of the sick, the Physician used to strike the end of his cane against the floor, so as to shake up the contained powder, part of which, making its way through the perforated lid, tickled his olfactory organ when applied to it. The aromatic particles were also to some extent diffused about the room. Its use was simply prophylactic, the process being supposed to prevent or diminish the risk of infection.

I believe there are one or two of these relics of "Our great ones of the past" now in the possession of the Royal College of Physicians. I am, &c. W. H. S.

Clapham-rise, December 15, 1856.

No. 159.—Have Deer a Gall-Bladder?

It is well known to comparative anatomists that the deer tribe have no gall-bladder, although other ruminants, such as antelopes, and the hollow-horned species (oxen, etc.), are provided with that organ. For further particulars, consult the Art. Ruminative, in Dr. Todd's "Cylopædia of Anatomy and Physiology." I am, &c.

T. S. Cobbold, M.D.

21, Upper Seymour-street, Portman-square.

No. 159.

The following quotation from Müller's Physiology by Baly, may interest a "Country Practitioner" in reference to his inquiry whether deer have gall-bladders:—

"Many animals, mammalia, birds and fishes, have no gall-bladder. There seems to be no general law for its presence or absence, although the species in which it is wanting are for the most part herbivorous, and are animals in which digestion is constantly going on; yet very many vegetable feeders are provided with a gall-bladder. When the gall-bladder is wanting, the duct is frequently very much dilated; such is the case, for example, in the horse." A. L.

December 16, 1856.

Medical Times & Gazette.

SATURDAY, DECEMBER 20.

IRISH AND ENGLISH APOTHECARIES AND PHARMACIENS.

The Governor and Council of the Apothecaries' Hall of Dublin have just published a manifesto against the Medical Reform Bill lately issued from the British Medical Corporations assembled in London. The Apothecaries' Hall of Dublin complains that it is not included in the proposed arrangements, while the Apothecaries' Society of London is to have a share in the future management of the Profession. It is also urged by the Dublin Apothecaries' Hall that the Universities are excluded from the proposed Bill; but whether this complaint be just or not, we think that our Dublin friends are well able take care of themselves.

The most forcible arguments used in this manifesto are, that the Dublin Apothecaries' Hall has hitherto given licences for General Practice, and that no charge of abuse or incompetence has ever been made against it in this exercise of its

functions; that recent events have shewn the necessity for the existence of an Institution for special education in Pharmacy; that the proposed Reform Bill makes no provision for a competent general education of those about to enter the Profession; and that the Bill annihilates the Apothecary in Ireland, and provides no adequate substitute as a protection against ignorance and quackery. The Dublin Hall expresses itself favourably of the Bill which received the sanction of a Select Committee of the House of Commons last Session, and proposes a form of Petition in favour of that measure, which, it will be recollected, proposed to perpetuate for a term of years the functions of the Apothecaries' Halls of London and Dublin.

In reference to the manifesto and petition to which we now allude, we feel that the Apothecary system of Ireland offers still greater difficulties in the way of settling the Reform question than the Apothecaries' Act of England passed in 1815; the education and mode of practice of the London and Dublin Apothecaries, although essentially similar, having led to results diametrically opposed to one another; for, while the Dublin Apothecary has the exclusive right of practising Pharmacy, and *keeping a shop for the compounding of drugs*, the London Apothecary has in most cases left the sale of drugs to the so-called Chemist, who, in ninety-nine cases out of a hundred, possesses no scientific knowledge whatever. The Irish Government most properly prohibits any one from compounding drugs who has not passed a scientific examination; while the English Government allows drugs and poisons to be vended or compounded by any person whatever. But, while we admit the admirable manner in which the practice of Pharmacy is regulated in the sister kingdom, it may become a question whether the superintendence of Pharmacy throughout the British Empire ought not to be entrusted to a separate authority.

It would appear that the authorities of the Dublin Apothecaries' Hall are of this opinion; for, in a report made by the Company's Council on the 18th of May, 1855, on the subject of two Draft Bills for Medical Reform which were at that time under the consideration of the Legislature, it is admitted that, in the arrangement of a new system of Medical Government, it might become necessary to abrogate the power of the Dublin Apothecaries' Hall to grant licences to practise, and for the future to limit its jurisdiction to Pharmacy. The Dublin Hall, however, has always urged, and perhaps with justice, that in any enactment for licensing persons to practise in *every* department of the Profession—"in Medicine, in Surgery, and in *Pharmacy*"—the Apothecaries' Hall should be allowed to assist, in order that the candidates examined should have an opportunity of having their abilities tested by parties possessed of the highest knowledge and experience in *each* department. And if this be granted, as we think it ought to be, then the Dublin Apothecaries' Hall, which has never betrayed the trust reposed in it, and which has always maintained a most honourable reputation, should be represented in any new Board which may hereafter be constituted. If, again, it be admitted that, for the welfare of society, and for purposes of general convenience, a class of Medical men should exist who not only practise Medicine, Surgery, and Midwifery, but who also compound the medicines for their patients, then the admission of a certain number of Apothecaries to assist in the examinations is not only excusable, but is even necessary and expedient. Such an infusion of the Apothecary element into the Medical Examining Board would be entirely consistent with other measures which ought to be introduced to regulate and control the sale and compounding of drugs, which duties might be entrusted to properly educated Pharmaceutists, examined and licensed by the Apothecaries' Hall of Dublin, which might have its charter modified accordingly. Such we take to be the views of the Dublin Hall upon the important question of Medical Reform, and we conceive that they are worthy of the deepest attention from all those who have the power to legislate on the subject.

The regulation of Pharmacy in England labours under many more disadvantages than in Ireland; for while, as we have shown, the Apothecaries' Hall of Dublin possesses the power of licensing persons to open shops and to compound drugs, and *of punishing those who practise Pharmacy without such licence*, the Apothecaries' Society of London possesses no control whatever over the compounders or sellers of medicines, the Chemists and Druggists being expressly exempted from the operation of the Act of 1815. Yet the Apothecaries who existed before that period were, in some respects, identical with the Chemists and Druggists of the present day, their duties consisting chiefly in compounding the prescriptions of Physicians, to which employment was added the sale of ordinary medicines over the counter. The old Apothecaries (with the exception of the few who were members of the London Apothecaries' Society), possessed no right to practise Medicine or Surgery any more than the Druggists of the present day; but they nevertheless did practise both, to the detriment of the Physician and the Surgeon, just as at present the Druggist practises Medicine and Surgery (when he can) to the detriment of the licensed Practitioner. It was, no doubt, intended by the framers of the Act of 1815 that the English Apothecary should combine the office of Chemist and Druggist with that of the Medical attendant upon the sick; and many of the expressions in the Act, specifying the duties of the Apothecary, and cautioning him to be particular as to the purity of his tinctures, conserves, lohocks, ointments, etc., distinctly point to such a combination, if they do not precisely indicate his subordination to the Physician. But, as is well known, the English Apothecary has become the Physician of the middle and lower classes. Such of the public, therefore, as, in spite of Homœopathy, and Hydropathy, and Mesmerism, and Kinesipathy, still retain their faith in drugs, or who meditate removing themselves, or their relatives or friends, by poison, resort to the establishment of the Druggist, who is equally ready to serve his customers in either capacity.

This functionary is wholly independent of any control as to his education and qualification; and although in the legitimate exercise of his craft he has to deal with the most refined processes of Chemistry, and is daily wielding some of the most powerful weapons known in medicine—and although his carelessness or ignorance may retard the recovery, or accelerate the death, of scores of his fellow-creatures, yet he may pursue his calling without having the most remote idea of the science of Chemistry or of Toxicology, of Botany or of Materia Medica.

We have often asked whether this state of things should be allowed to exist? and, hopeless as we have hitherto been of any amendment, recent events have brought the whole matter so prominently before the notice of the public, that we believe at last some amendment may be anticipated. But we are strongly of opinion that it will be perfectly useless and obviously unfair to legislate for the Chemists and Druggists exclusively, without at the same time remedying the existing evils in the Medical Profession, with which the pursuits of Pharmacy are necessarily and intimately connected. Bearing in view the great difficulties attached to the completion of a comprehensive scheme of Medical Reform, we have no wish to pronounce definitively upon the best method of regulating the operations of the Chemists and Druggists; but it strikes us that the Apothecaries' Halls of London and Dublin, or some similar bodies to be hereafter constituted, might appropriately undertake the supervision of the Pharmaceutists in the respective countries, and that all those who compound drugs

should be compelled to afford evidence that they possess at least some knowledge of the instruments which they are in the daily habit of employing. With regard to the sale of poisons, it may perhaps be admitted that no future enactments can altogether prevent this baneful practice; but the fact that the vendors of such dangerous agents will be placed under strict superintendence will, no doubt, exert a wholesome check against negligence or incapacity, and will render the possession of poisonous drugs by the public far more difficult than, unfortunately, is the case at present.

THE WEEK.

On Saturday last Dr. Snow administered the vapour of amylene in four Surgical operations, at King's College Hospital. Mr. Fergusson performed an operation for fungus of the testicle in a man; and divided some tendons in a child about four years old with club-foot. Mr. Bowman removed some diseased glands from the groin in a boy about twelve, and divided the tendons of the ham, and made forcible extension of the knee, of a man affected with partial anchylosis of the joint. The amylene caused an entire absence of pain in all the cases, although the inhalation was not carried so far as to induce complete coma, the patients appearing to be in a dreaming state during the greater part of the time that the operations were going on. There was a little mental excitement and muscular rigidity in the two men, but not more than frequently takes place under the influence of chloroform; and the recovery from the effects of the vapour was very prompt. Dr. Snow had previously given the amylene in several operations on the teeth, performed in the same hospital by Mr. Samuel Cartwright, the Dentist to the institution; and he informed us that he had not yet met with sickness in any case, although most of these latter patients had taken their dinners just before coming to have teeth extracted. Amylene is made by distilling fusel oil with chloride of zinc. Its composition is 10 atoms of carbon and 10 of hydrogen. It is only two-thirds as heavy as water, and it boils at 102° Fahr. The vapour is much less pungent than that of chloroform, and therefore easier to breathe. This liquid was first described by Cahours about fifteen years ago, but has apparently not attracted much notice. We are not aware that it was ever applied by inhalation till Dr. Snow turned his attention to it a few weeks ago, and he is not yet prepared to say whether he will recommend it for general employment. The amylene he has used was made for him by Mr. Lloyd Bullock. It was administered in all the above cases by means of his usual chloroform inhaler.

An important inquiry has been instituted by the General Board of Health, to ascertain whether the drainage and water-supply of Croydon had or had not improved the state of health in the district. A series of questions was addressed to the Medical Officer of the Croydon Local Board of Health, but the Board have not exercised their power of appointing such an officer. The questions were accordingly sent to various Medical men and clergy of the district. The replies tend to show that the result of the working of the present system of drainage and water supply is, on the whole, satisfactory, the number of cases of illness having decreased, those which occur having put on a more active type, become shorter in duration, and more tractable under treatment. This, however, appears to be rather the result of general impression than of statistical or recorded information, and the want of precise knowledge on the subject points very decidedly to the necessity of appointing a Medical Officer of Health for Croydon. Mr. Bottomley describes the drainage works as "most elaborate, expensive, and inefficient," and the water-supply as "far from satisfactory." Other gentlemen speak to a want of water-supply at night. Mr. Roper, and the Vicar, the Rev. J. G. Hodgson, speak of the filter-house as a "public nuisance." Mr. Cooper describes the drains as unnecessarily crossing private premises; and the general feeling seems to be that additional supervision is required to prevent the evils which arise from stoppage of the drains, and their imperfect ventilation, and that the supply of water should be constant. We trust, therefore, that the Croydon Board will at once appoint a Medical Officer of Health for the district.

Mr. Griffin, the indefatigable champion of the Poor-law Medical Officers, has just presented a Memorial to the Poor-law Board, detailing some recent acts of meanness and injustice perpetrated against himself as one of the Surgeons of the Weymouth Union. It appears that Mr. Griffin was requested by one of his colleagues in the Weymouth Union to see, on distinct occasions, three cases in consultation: one being a case of dislocation of the humerus, in which reduction was accomplished with some difficulty; a second a case of protracted labour, in which delivery was effected safely by the use of instruments; and a third was a case of obstinate constipation of the bowels, in which relief was afforded by the adoption of the simple expedient of inflating the bowels with a pair of bellows. In each of these cases Mr. Griffin applied for the fee to which he was legally entitled, and in every instance the Guardians refused to pay, without, as far as we are aware, assigning any reason for the refusal. He has, therefore, represented the whole of the circumstances to the Poor-law Board, and has called upon that tribunal to compel the Guardians to pay the money, reminding the authorities at Whitehall that they have absolute control in such matters over the Local Boards. In the same communication Mr. Griffin takes occasion to remind the Poor-law Board, that the general Memorial which he presented on behalf of the Poor-law Medical Officers has not yet been answered, although many months have elapsed since its presentation; and he also reminds them, that he mentioned at the same period two of the cases which are detailed in his recent letter. He now, therefore, begs for an answer, as he thinks that sufficient time has been allowed for deliberation. The tardiness of official justice does not deter Mr. Griffin from pursuing his honourable career, and difficulties which might appal a man of less firmness and resolution appear to be no difficulties to him. We should gladly observe and record a similar feeling of energy among the other Poor-law Surgeons, who, although they are coming forward by hundreds, ought to multiply their ranks by thousands, in the effort to resist the oppression to which they are daily subjected, and the insults which are incessantly heaped upon them. They should all recollect that Mr. Griffin's cause is theirs, and that it is their imperative duty to rally round him, especially at the present time, when the near approach of another Session of Parliament offers a chance for the redress of their grievances. It must always be remembered, that the best mode of making an impression upon Parliament is by numbers and by union, and that if there be any indication of apathy or of dissension, the circumstance will be eagerly caught up by the Poor-law Board as a pretext for ignoring grievances and denying redress.

In 1851 the population of Great Britain and Ireland was 27,435,325. By this time it amounts, according to a very moderate estimate, to thirty millions, a very large population when compared with the acreage. How necessary it is, then, with so rapid an increase in the numbers of the people, to adopt every means likely to add to the amount of their food, by increasing the productiveness of the land! Scientific agriculturists and practical farmers are now pretty well agreed that

the produce of the soil might be doubled or trebled by better drainage, deeper ploughing, and more manure. How very possible a great increase is, may be proved by the fact that the produce of wheat in Scotland since 1854 has increased 56·5 per cent., and in Ireland 36 per cent. Capital and skill are not wanting for the drains and ploughs, but we can only get cheap manure by utilizing the sewage of our towns. This we may do some day, for Government has at last come to the determination to appoint a Scientific Commission to inquire into the whole subject of sewage deodorization and utilization. This will not be agreeable, either to the Board of Health or the Board of Works; but if the new Commission be well constituted, we have little doubt that they will devise an effective means of converting the sewage of all our towns into cheap manure to the farmer, and will prevent the pollution of all rivers or streams from whence the water-supply of the population is obtained. With less than this the public will not be satisfied; and although the Board of Works, which ought to set an example to the country, has agreed, by a majority of 23 to 13, to recommend a scheme of Metropolitan Drainage by which the manure will be wasted, and the Thames polluted, we feel quite confident that Government will not approve the plan.

We beg to draw especial attention to a letter which will be found in another column, by Dr. Radford, of Manchester, on Hospital Appointments and Electioneering. We sincerely trust that those who have the power will endeavour to originate in the Hospitals with which they are connected a mode of election to Medical offices more in accordance with Professional honour and dignity than that now generally followed. The system described by Dr. Radford as adopted at St. Mary's Hospital, Manchester, appears to be as good as can be devised. The absolute prohibition of canvassing is an admirable rule, and we are confident that the stringent regulations as to plurality of offices might be imitated in London with very great advantage to Medical Science and to the Profession.

The authorities of St. George's, Hanover-square, have instituted a prosecution against a dairyman for keeping a number of cows in so crowded and unwholesome a condition as to constitute a nuisance, and to be injurious to the public health. According to the evidence of Dr. Aldis and Dr. Druitt, the Medical Officers of Health for the district, the locality where these cows were kept had become so pestilential that twelve Medical gentlemen had complained of it, and it was proved that low fevers and diarrhœa were endemic in the locality, although, in general, Belgravia was one of the most healthy districts in the metropolis. Dr. Aldis showed from statistics that cholera, small-pox, typhus, and scarlatina prevailed especially at this spot; and he produced a portion of the earth from beneath the pavement of the cow-sheds, which was loaded with decaying organic matter of all kinds, such as dung, rotten potatoes, and other putrid matter. The earth, upon analysis, yielded poisonous gases, especially hydrosulphuric acid gas, which, being slowly evolved, would of course contaminate the atmosphere, and predispose to, if not actually originate, zymotic diseases.

The capture of Herat and the declaration of war with Persia will probably lead to a considerable additional demand for Assistant-Surgeons in the East India Company's Service. Young Surgeons will do well to remember that the appointments are worth from £42 to £70 per month, even if promotion be not obtained, with good pensions or retiring allowances; and that these appointments are to be gained, not by patronage, but by merit, the admission of candidates into the service being entirely dependent upon the competitive examination.

We have received another letter from Dr. Arnott on the effect of Chloroform on the result of operations. He rebuts with very natural warmth the accusation of having brought a charge of rashness against Hospital Surgeons for their use of anæsthetics. But, while it appears unnecessary to publish his letter, we trust the important question he has brought before the Profession will not be lost sight of. Let us have more accurate information as to the alleged increased mortality since the introduction of Chloroform. Is it really greater than before? Some of our correspondents are already working at this question in their respective Hospitals, and we shall, before very long, be able to give the mortality of most capital operations for the eight or nine years preceding and following the introduction of anæsthetics in some of our largest institutions. We trust that others whose attention has not been directed to this matter will make use of the records of those Hospitals to which they have access, as it is only by the accumulation of a large body of evidence that we can arrive at the truth. When we are able to say with precision that mortality after operations has really increased since the use of Chloroform, in what proportion, and in what hospitals or districts, we shall be in a position to inquire whether the Chloroform and the increased mortality stand in the relation of cause and effect, or are mere coincidences—whether pyæmia has really increased of late years, or has merely become better known—and whether, admitting this increase, Chloroform has anything or nothing to do with it. On this point our Provincial Surgeons could give some valuable information, as we know more than one who, in a large operating practice since the introduction of Chloroform and constantly using it, has never even seen a case of pyæmia.

We are indebted to a correspondent for the following paragraph:—

"The distribution of the money and rewards assigned by the Sultan to the lady nurses and females employed in tending the sick during the recent war is to take place this week. The half ornament, half decoration, which is to be conferred upon all the ladies who gave their gratuitous services to the sacred cause of alleviating the sickness and suffering of our fellow-countrymen and allies in arms, is of gold, having an enamelled centre piece in the national colours of Turkey, with the crescent and the cross worked in diamonds upon the enamel. It is an extremely pretty ornament, and quite small enough to be worn as a brooch or decoration, or almost in any way in short except as a bracelet or necklace."

We are sorry to hear that the ladies and nurses who served at Smyrna and Renkioi will not be included in this reward. Their services well deserved it, and it is difficult to understand on what principle it is denied to them, while it is granted to their Sisters at Scutari, Kulalee and Therapia. It has been stated that our Queen would follow the example of the Sultan, but the latest reliable information we have on the subject is, that it is under the *consideration* of Government. A very pretty ornament has been designed for the Lady Nurses at a cost of £15 each, and one for the Paid Nurses at £5 each, but as the entire cost of this tribute to the devoted women who nursed our sick and wounded soldiers would lead to the enormous outlay of £450, considerable hesitation was felt in following the example so gracefully set by the Sultan! This sum, however, would not be a very overwhelming addition to the millions spent on the war.

Electricity.—In the Imperial Library at Paris an interesting work on "Electricity as a Universal Agent" has been found. It was written by Count Tressau, and, being printed so far back as 1783, is said to have somewhat forestalled the recent important discoveries in this department of science.

OUR GREAT ONES OF THE PAST.

MEN OF THE BRITISH SCHOOL.—No. III.

RICHARD WISEMAN.—*Continued from page* 601.

The reader will remember that in our last notice we referred to a certain styptic liquor which had been used by Wiseman and Dr. Needham in a breast operation. It may interest some to know that this styptic, the composition of which is not given, was of French invention; the account of its introduction is described in the eighth volume of the "Royal Transactions." On May 1, 1763, a letter was written to the publisher of the "Transactions" by M. Denys, of Paris, stating that by the king's order he and others were busy in experimenting with an "admirable essence" for stopping blood in divided vessels. A little further on in the same volume some additional experiments are related by Dr. Needham, in which he and Wiseman applied the styptic to the divided carotids of a sheep (a). Needham also here refers to the above operation, and Wiseman adds a note. Denys was called over to London by His Majesty Charles II., and made experiments before that great potentate, dogs being the subjects. Afterwards the king seems to have witnessed other experiments on two calves at Whitehall in the Banqueting-house, His Majesty declaring that he felt well satisfied. Denys, above referred to, was Consulting Physician to his French Majesty Louis XIV., and is said by some to have been the first to employ the operation of transfusion in the human subject.

Treatment of Dropsies.

In Wiseman's time the common trocar and canula now used in paracentesis seem to have been unknown. Barbett, he says, has lately published the use of a hollow needle, which, being thrust in, will let out what quantity you please. "The repeated intrusion of this into the same or fresh holes, say he and Sylvius, will evacuate water at your pleasure." Wiseman tried this needle with Mr. Hollier, but objected to it on the ground of the injury that might be done to the intestines as the body collapsed. He concluded that the best plan of treatment was the old plan of a canula made taper-wise with holes in the side, which, being conveyed through a hole made by a puncture, may be kept in till all the water flows out. From one case which he describes it appears that he introduced his canula "three fingers below the navel;" that he drew off the fluid in small quantities at a time, and that he left the canula in the wound so long as he was inclined to evacuate the fluid.

In cases of anasarca he seems to have trusted mainly to firm bandaging and the use of brisk purgatives, as elaterium. In one case of hydrocele he scarified the scrotum; in all he used various foments. In an instance when he was attending the king at St. Johnstone's, being called to a man with a swelling of the scrotum, which he thought was hydrocele, he made an eschar with a caustic on one side, and afterwards opened the other side by incision. The man recovered.

In hydrocephalic cases he teaches that if the swelling proceed from effusion external to the cranium, it may be opened; but if it proceed from within, he suggests that it be let alone. Children with hydrocephalic heads he holds to be of unsound constitution; if they recover they fall into rachitis, which for the most part terminates in king's evil.

Scabs and Itch.

The view held by our author as to itch, was that it arises from "a local ferment;" it may be caught by infection. His treatment was to bleed, purge, and apply outward remedies, which are numerous, "and may be proportioned to the quality of the person." Where the whole body is infected, bathing is most necessary; then fomenting with another elaborate concoction, the whole to be completed with an ointment still more elaborate, but not having a word about sulphur.

In some cases narrated by him, he prescribed Ethiop's mineral internally, bleeding, purging, and bathing. Doctors differed in Wiseman's time; and sometimes, even in those days, a breach of professional etiquette turned up. He tells of a child with itch, whom he treated with mercury. By the prosecution of it the itch lessened, but the "child's chaps became sore." He cured her, and finished his course by bathing in milk-and-water, and some few diaphoretics. "The parents were well pleased with the cure; but afterwards consulting a physician (since deceased), in some case concerning their own healths, and discoursing of the child's cure, he persuaded them that it had been cured with mercury, and put them upon such a prejudice to the medicine, as they from that time declined advising with him (Wiseman), suspecting that he might again repeat it." Very unprofessional this!

Hernia.

Wiseman introduced his treatise on Hernia with some anatomical remarks of no inferior kind. In order to cure it is necessary to consider whether the hernia be intestinal or omental, recent or of long continuance, made by relaxation or ruption. First, the reduction of it is to be tried. The patient is to lie on his back with his head declining, and his hips raised high, with his heels retracted towards his hips. Then with warm cloths it is to be tried how the tumour can be reduced, pressing moderately and gradually, taking care not to bruise it or the testicle. If it does not yield, it is to be considered whether the repletion of excrements or crudity were the cause; in which case a clyster may be prescribed. (A most elaborate formula is here supplied as usual.) These may be repeated till the bowels are emptied, and the white decoction may be applied with stupes. If the excrements be hardened in the prolapsed intestines, a cataplasm of "fæces" may be made by beating them up with "axung. porcin., unguent. dialthææ, ol. lilior," &c. (odoriferous), and applied *hot* to the scrotum. "Thus the excrements may be softened and evacuated." Then reduce the hernia, which being done, the next thing is to shut the foramen by which the intestine or the omentum escaped. This he proposes by the use of agglutinative and binding applications, "such as the emplast. contra rupturam in the London Pharmacopœia" (rather too good a plaster to be omitted in our modern pharmacopœias surely). This was to be spread on leather, and applied with a convenient truss.

At this point Mr. Wiseman digresses, to give an account of trusses in general. Bag trusses are recommended; they were made by Mr. Syms, in Bell-alley, near Temple-bar. There were also trusses made of whalebone, others of thin laminæ of tin and steel; and these were made by Mr. Smith, a Scotchman, who lived near Fleet-bridge. "He was the most ingenious man in that work, and made the best trusses for retaining umbilical herniæ."

"The same Mr. Smith," says Wiseman, "also invented an engine, by which he set persons on their heads who were suffering from hernia difficult of reduction, and thereby reduced many which could not otherwise be relieved." Wiseman is not averse to this plan; for he explains that, if the plans already mentioned fail, it is necessary to consider what the impediment is, and proceed accordingly to let blood, purge, or vomit, or put the patient into a semicupium, keeping on the bag truss the while, after which he may, if occasion require, be carried to and fro upon the back of a strong man, with his head downwards, by which the prolapsed bowels are often reduced. A novel idea, this stand on the head business, and flavouring of acrobat science.

After these and other general rules about diet, and another spell at the agglutinatives, Wiseman turns to cases where the hernia is down and irreducible, and the patient is threatened with vomitings and inflation of the abdomen. Here he goes in for early operation, while there is yet strength: "there seeming nothing of difficulty or danger in the work." The "work" itself is thus described:—

(a) Needham speaks of Wiseman as Mr. Sergeant Wiseman, from which t would seem that in those days the Sergeant-chirurgeon of Royalty took he title of "Sergeant."

"To perform the operation, the patient ought to be laid flat on his back upon a table or form, and bound thereon. Then an incision must be made upon the upper part of the scrotum to the production, which requireth also to be divided, without touching the intestines or omentum; then you are to pass in a canula (like our common director, but big as a large goose-quill) into the cavity, under the process of the peritonæum upwards, avoiding the intestines. Then make your incision of such a length as may serve to put your fingers into the scrotum, and raise the intestines and omentum, which you are to reduce into their natural place within the belly. They being much reduced, you must stitch up the wound, as is said in the wounds of the abdomen, taking up with the needle so much of the production as may shut up the cavity, and prohibit the relapse of the intestines; that done, cure the wound, as showed in the treatise on wounds, it being not so large or dangerous as many of those we have cured in the wars."

Referring to the radical cure of hernia, Wiseman enumerates various ways, viz., by the actual and potential cautery, by puncture and deligation of the process of the peritonæum, and by incision with or without extraction of the testicle. These ways, he says, are not practised amongst our people, they esteeming such operation of hazard and cruelty. Yet he thinks it worth while to describe the operations. If the actual cautery is to be used, several sorts of buttons are required. While these are in the fire the patient must stand and hold his breath, by which doing the tumour, *in inguine*, will be more apparent. Then it is to be circumscribed within a triangular figure; after which, the patient being placed on his back, the operator is to press with his hot cautery on the middle of the triangle, and repeat it often, making the form of the Greek letter Γ so deep as to reach the membrana adiposa, taking care not to scorch the peritonæum. Then the burned parts are to be dressed with a little salt and an onion—(sharp practice)—beaten together. Afterwards the wound is to be dressed as an ulcer, the patient keeping his bed till he is cured. By this method a contraction of the skin, by reason of the cicatrix, is proposed; but how this will succeed without the wearing of a truss Wiseman is given "to suspect."

For the use of caustics, in the times of which we speak, the patient was prepared as for the actual cautery; then the caustic was applied crosswise an inch long, and as much transverse near the os pubis; "which, having operated to the bone, it is supposed that the bone shall exfoliate, and that the callus arising from it will unite with the ulcer in the fleshy parietes and skin, and stop the descent of the viscera, which, remarks our author, "cannot prevent a buboncele." Another way was to apply the caustic *in inguine*, to raise off the eschar, and, taking up the membrana adiposa with a hook to divide it, and free the seminal vessels from the process of the peritoneum. This done, to pass a needle with crude silk under it, tie it close, and, leaving it hanging out, digest the ulcer, incarn and cicatrize it, during which the silk would have cut through and fallen off; and the "*production*" uniting with the wound would absolutely confirm the cure.

There are two ways, he contends, of curing by incision; in order to which the patient must stand upright, that the rupture, by falling down may discover its bigness, and be mapped out as before. The patient must then be laid flat on the table, with his heels raised up; an assistant must press with his hand upon the bottom of the belly, while the Chirurgeon, with his left hand, raises up the marked skin as much as he can, then divideth it with a knife longways, down the length of the process or tunica vaginalis, so as to open that coat and lay the seminal vessels bare, which he is to avoid hurting whilst he takes up the divided "tunicle," and stitcheth it with the skin so close that the hernia may be retained within the body from starting out. Then by agglutinatives, as "bol. armen. sang. dragon. thus, aloe, cum albumine ovi," dress it up and place him in his bed. If afterwards there be occasion, to apply digestives, after which to deterge with some sarcotick, and finally cicatrize as in other wounds.

Another plan of operation, called by the Sergeant-Chirurgeon the "empirical," was by extraction of the testicle, in the doing of which the patient must be laid on his back and bound. Then the intestines being reduced the assistant shall retain them up with his hands, while the operator maketh an oblique mark in the groin, to which place he pusheth up the testicle; then he makes an incision so deep and large upon it as to take it out with the spermatic vessels, which he holdeth with one hand, while with the other he separates it from the membranes. That done he maketh a ligature above the testicle upon the vessels, and cuts it off. If there be fear of a flux of blood he cauterizes the ends so tied, and replacing them within the belly, leaving the ends of one ligature hanging out, he stitcheth up the wound, dressing as aforesaid, and during the time of cicatrizing the ligature falls off. What the true intention of this castration was is not very clear, and we find no note of its success.

The cure of umbilical hernia is best treated, according to our author, by the bandage and truss. If, however, through neglect of treatment the skin wear thin and mortify, it must be dressed as such, and after the separation of the eschars an endeavour must be made to take up the peritoneum, to stitch it close together, and "incarn" with the rest of the ulcer; after cicatrization to endeavour by a good bandage to retain the rupture more easily within bounds. The ruptures of young children were to be treated, mainly, by firm and constant suppport.

On Ulcers and their Treatment.

The treatise on ulcers is very interesting. Wiseman gave several varieties of these, viz., the simple ulcer, the ulcer with "intemperies," the ulcer with pain, the ulcer with fluxion, the ulcer with hypersarcosis, the ulcer with caries in the bone, the ulcer with callous lips, and the putrid ulcer. In the treatment of simple ulcer he orders dressings of various kind, and the laced stocking. In those with pain he soothed with anodynes. When there is caries he recommends and practises the removal of the bone as the only means of cure. Sometimes in such cases he removed the bone at once, in other cases he laid it bare only and applied to it medicaments to assist its coming away. Speaking on cases of this kind he lets us know that in 1652 he passed from Chester to London, and took in his way the little village of North Luffenham, in the county of Rutland, still a pretty rural place, and here stayed to treat a freeholder for a tumour of the thigh. Our Surgeon opened the tumour, let out the contained matter, and, finding the bone carious, had a cautery made at the smith's, and dried the bone that way. "The exfoliation was here insensible, the scales mouldering away." When our operator left his patient the ulcer was nearly cured, and one or two months after the freeholder returned to his husbandry.

In another case he took out the lower jaw, cutting through the bone with watch files. This must have been done during the wars, for the patient was an officer in the King's Regiment of Foot, who, while marching at the head of his company in a hot summer's day, was seized with a pain in one of his teeth of the lower right jaw. A tooth-drawer, in taking out the tooth, fractured the alveolar process. This was the origin of the malady. Wiseman's operation led to complete recovery in the end.

Wiseman hated empirics, and always attacked them when he had the chance, which seems to have been often enough. He refers to the mischiefs arising from the use of a purgative called Lockhart's pill. In one case he gave a braggart empiric full scope, and allowed him to dress the ulcer his own way,—a speedy cure being promised. The result was unsuccessful, and the patient again resorted to Wiseman; she recovered, and by the continued use of the laced stocking remained well. In one instance, where an ulcer existed over the fibula with caries of the bone, he cut through the tendons covering it, and in time removed the bone, a callus forming in its place.

In the year 1654, he tells of a Londoner who, on his own Chirurgeon dying, asked Wiseman to take his place for the same salary. Wiseman accepted, and the case did him credit.

In the treatment of hæmorrhoids, Wiseman used in some cases the royal styptic liquor; also, "that old remedy, fryed leeks and butter beaten to a cataplasm." He did not hesitate sometimes to remove these tumours, and it may be inferred from one passage that he occasionally employed the ligature. As an astringent, red wine is recommended. When the bowel protrudes, and has to be returned, this astringent is to be applied with *scarlet* cloths. Why scarlet? There is an old tale to be told some day about this. To the excrescences vitriol stone is applicable.

All species of excrescences about the anus are for the most part, as Wiseman thought, symptoms of the lues venerea. In removing excresences, he used the "speculum ani;" and, when he thought it proper, applied the ligature to the base of the enlargement.

In fistula in ano, the way of laying open the fistula was, according to his view, either by incision or by ligature. The way of incision was with scissors, if the sinus were short; with the thread, if long. Cauterization with vitriol was likewise practised.

THE CURE OF THE KING'S EVIL BY THE ROYAL TOUCH.

It is a remarkable fact that Wiseman, little as he seemed given to incredulity in matters ordinary, did still express a firm faith in the efficacy of the royal touch in the cure of scrofula. Nay, he is jealous that the kings of France should presume to a right divine, as well as a royal and immortal gift, descending direct on the occupants of the English throne from the time of Edward the Confessor. If (he adds triumphantly) the French kings, indeed, have the gift, they have it later than the English; Dupleix himself, a most diligent writer of French history, deriving it no further than Philip I. or "Lewis the Gross." The cure, too, says Wiseman, can be done without the sign of the cross,—a tremendous point! and he has himself been an eye-witness of many hundred cures by His Majesty Charles I.'s touch alone, without any assistance from Surgery; and those many of them of such a kind as had tired out the endeavours of able Chirurgeons. Then he gives a statement about Charles I., which, if true, is a curious fact for the general historian. We give the statement, therefore, in full:—"It is needless also to remember what miracles of this nature were performed by the very blood of his late Majesty of blessed memory; after whose decollation by the inhumane barbarity of the regicides, the reliques of that were gathered on chips and in handkerchiefs by the pious devotees, who could not but think so great a suffering in so honourable and pious a cause would be attended by an extraordinary assistance of God, and some more than ordinary miracle; nor did their faith deceive them in this point, there being so many hundred that found the benefit of it. If his dead blood were accompanied with so much of virtue, what shall we say of his living image, the inheritor of his cause and kingdom, whom, though it hath pleased God to deliver out of those dangers that overwhelmed his royal father, yet it was with so long an exercise of afflictions, that though (God be thanked!) he be not now likely to increase the catalogue of martyrs, yet he may well be added to the number of confessors? Thus we are sure, the miracle is not ceased."

We have placed Wiseman among our great ones, not without reason, but not for this shoe-latchet kissing sycophancy. The idea of Charles II. for a confessor, of all men again! The apologies for the Serjeant-Chirurgeon are, that he *was* Serjeant-Chirurgeon; that he was bitten with the toadyism of the period, an accident not altogether provided against even now; and that, being devotedly attached to his royal master, a fellow-partner in his journeyings and perils, he lost sight of all the royal vices in admiration of such few good qualities as did now and then issue from the Stuart heart.

But Serjeant Wiseman went even deeper into the royal touch mystery. He noticed the "evasions that obstinate and incredulous men have used to avoid so great a notoriety of experience." He takes upon himself to prove that the touched were not cured by change of air, not by the effect of imagination, not by gold; and these points settled to his own satisfaction, he supplies, for the purpose of meeting "the infidelity of many in his fantastical age," an account of what nature and art have done or can do for the relief of mankind in this disease. He apologizes for this step, on the ground that the French king's Chirurgeons have done the same before him, as also did Mr. Clowes in Queen Elizabeth's time.

(To be continued.)

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON PUTRID INTESTINAL EXOSMOSIS.

By Professor TIGRI.

PROFESSOR Tigri observes that whenever he has examined the bodies of those dying of peritonitis, he has always found the puriform serum collected exhibiting the same characteristics of colour and composition, and differing from that observed in other serous membranes, the seat of acute inflammation. His attention was called to the signs of commencing putrefaction during life in some of these cases, and to the rapidity with which this process occurred after death, as shown by the changed condition of the blood, rapid decomposition, &c. It suffices that the wall of a canal or of a cavity, which is in contact with the external air, or with matters undergoing decomposition, have lost even partially its physiological properties through the operation of inflammation, for the act of exosmosis to be set up. If the visceral peritoneum that has been recently the seat of acute phlogosis be examined, it will be found opaque and roughened on its free surface, softened, and easily separated from the intestinal paries. This exosmosis once effected, we can easily understand the successive decomposition of the products of inflammation exuded from the peritoneal surface, together with the aggravation of the inflammatory symptoms, and the addition of disturbances referrible to putrid absorption. It seems strange that a partial peritonitis is of itself capable of extinguishing life, the office of the membrane, though important, not being of a nature to excite much disturbance of the primary functions during its pathological conditions. Such disturbance, however, and that of a dangerous character takes place; but this arises from the extension of the inflammatory process, and from the passage of putrid absorbed matters into the blood, due to the establishment of exosmosis, and the corruption of the intra-peritoneal fluids. The tympanites, so common in this affection, is one of the results of the exosmosis.

As an indication flowing from these views, Dr. Tigri suggests that, while the peritonitis is to be combatted as actively as possible, yet, with a view of diminishing the exosmosis as much as possible, small and repeated doses of purgatives should be administered from an early stage of the disease, choosing those which, in place of favouring the production of sulphuretted hydrogen, possess an anti-putrescent tendency, as calomel, magnesia, aloes, etc. At the same time, diluted ferruginous waters should be given as drinks, those of Rio, in the Isle of Elba, possessing a decided power in disinfecting fæcal matters.

The fact of the existence of this exosmosis is testified in other forms of disease, as in blind fistula of the anus. In fatal acute affections of the trachea, and chronic ulcerative disease of the laryngo-tracheal mucous membrane, the author has often observed, a few hours after death, remarkable increase in volume of the suprajacent tissues; while these have exclusively manifested at an early period the greenish colour characteristic of putrid decomposition. Abscesses of the abdominal parietes, opening externally, and largely denuding the juxta-peritoneal structures, require special care, in order to prevent the passage of the decomposed pus through the serous membrane by endosmosis. Repeated washing, and the application of iodine or creosote to the entire internal surface of the abscess, position, compression, and counter-openings are indicated. In abscesses in other regions, when the skin becomes greatly thinned, the external air may act upon the contents of the abscess, and give rise to the development of gas within its walls. So in eisto-peritonitis we must always bear in mind the possibility of exosmosis of matters contained within the bladder itself. In like manner is to be feared putrid infection, due to the decomposition of intra-peritoneal fluids in dothienteritis, with gangrene or deep ulceration of Peyer's glands, though the intestinal wall remain unperforated. The effects will much depend upon the nature of the inflammation. If this is acute, death may take place rapidly; but when chronic, as in the case of strumous or tubercular deposit, a sufficient defence against exosmosis may be set up. In many autopsies practised on persons so suffering, Dr. Tigri has found that where the intestinal paries was so diseased as to endanger exosmosis, it became there thickened by plastic deposits, or adhesions had taken place, such adhesions sometimes going on to well-nigh the obliteration of this large serous cavity. In other cases, in which there were no such adhesions preventing exosmosis and its consequences, the slow inflammatory process had destroyed the absorbing power of the serous membrane.—*Omodei Annali*, Vol. CLVIII., pp. 562—571.

EXCERPTA MINORA.

Extra Fingers and Toes.—Dr. Bernhardi had already published an account of a woman who gave birth to a boy in 1851, and to a girl in 1854, each having twelve toes and twelve fingers. This year she has again had a girl also with twelve toes and fingers. The extra fingers have the same direction as the others; but as there is no metacarpal bone, they are

articulated with the little fingers. The toes have metatarsal bones.—*Berlin Med. Zeit.* No. 31.

Fluorin in the Blood.—M. Nicklès states, that his experiments enable him to state, that Berzelius' supposition that fluorin was only accidentally found in the blood is erroneous. M. Nicklès finds it in notable quantities in the blood of both men and animals. This, indeed, was to be expected from the fact of fluorin existing in the bile, albumen of the egg, in gelatine, saliva, urine, and hair.—*Comptes Rendus*, Tome XLIII., No. 18.

Perchloride of Iron in Dysentery.—M. Blanvillon having found the perchloride of iron of great service in aggravated dysentery he had contracted in the Crimea, tried its effects in some twenty other cases, giving it by the mouth and in injections. The dysentery became rapidly converted into diarrhœa, which soon yielded to ordinary means. The dose is from six to twelve drops in sugared water, and double the quantity in enemata.—*Gaz. des Hôp.* No. 134.

Self-Catheterism.—It is often of importance to be able to point out to a patient the best means he can adopt for passing an instrument in the absence of his attendant; and M. Lemazurier says, that his is much facilitated by his adopting the position of the sitting-bath, viz., having the pelvis very depressed, and the thighs strongly flexed on the trunk, which is carried a little forwards.—*Bull. de Thérap.* Tome LI., p. 427.

Agreeable Mode of taking Senna.—Dr. Linthner says, that senna leaves (one or two drachms to one or two cups of water) should be allowed to infuse all night in cold water. With the strained infusion coffee is prepared next morning, as if with water; and an aperient which does not taste of senna, and does not cause griping is thus produced.—*Buchner's Repert.*, No. 7.

New Remedy in Gonorrhœa.—Professor Sigmund, of Vienna, recommends, in place of the expensive and frequently adulterated or too-old balsam of copaiba and cubebs, rectified turpentine and the seeds of *Heracleum sphondylium*, an indigenous and active, though little employed drug.

Buchner's Repert No. 7.

Caustic Paste.—Prof. Bryk strongly recommends the following paste, as being less expensive and of easier application than Landolfi's. The respiratory organs should be sheltered while preparing it. ℞ Chlor. bromii, zinci, antim. āā 3ij, pulv. altheæ 3iv. mucil. acaciæ q.s. M.—*Ibid.*

GENERAL CORRESPONDENCE.

THORACIC ANEURISM, AND ITS ASSOCIATION WITH TUBERCLE.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a paper published in the columns of the *Medical Times and Gazette* for November 8, 1856, I alluded incidentally to the rarity of the co-existence of thoracic aneurism and tubercular disease of the lungs. My object in so doing was to point out the value of feeble or diminished respiratory murmur, as a corroborative symptom in the diagnosis of the former disease; and as my paper was not intended to do more than give the results of my own experience at St. George's Hospital and elsewhere, I did not deem it necessary to give the statistics by which my views are supported. This omission has led to a question as to how far my opinion is warranted by facts, and an aphorism published by Dr. Stokes, of Dublin, in his admirable work on "Diseases of the Heart and Aorta," has been quoted by Dr. Speer, of Cheltenham, in opposition to my statement.(a) Without doubt the contrast is sufficiently striking. In my paper it is stated that "*the co-existence of tubercular disease with aneurism is rare;*" while Dr. Stokes avers (p. 578) that "*the morbid condition which most often accompanies aneurism (thoracic) is that of tubercle;*" and again (p. 599), "*that of the general morbid conditions which accompany aneurism, tubercular phthisis is the most common.*"

Now I believe that Dr. Stokes is not singular in his opinion. Almost all the gentlemen to whom I have had the opportunity of speaking, have been impressed with a conviction as to the frequent co-existence of the two diseases, and from inquiries I have made, there seems reason to believe that this view is very generally entertained. But mere opinion is of little value on a point of this kind, unless based upon the results of extensive experience; and I do not hesitate to say that the opportunities for observation which fall to the lot of any one individual, must be far too limited to form the basis of any trustworthy conclusion. The only method therefore of placing the matter beyond dispute, is by appealing to statistical information on the subject; and as the determination of the question is of practical importance, I will endeavour to collate, as briefly as possible, such facts as shall enable us to arrive at a correct conclusion.

Since the year 1841, when the practice was first adopted at St. George's Hospital of preserving a record in the Museum of the appearances observed in all post-mortem examinations, there have occurred 27 fatal cases of thoracic aneurism, (excluding false aneurism and aneurismal dilatation of the heart,) and in 3 only of these did there exist any trace of tubercular disease.

Among 17 other cases which I have had the opportunity of noting, one only presented any trace of tubercle.

In the Transactions of the Pathological Society of London, there have been recorded 32 cases of thoracic aneurism. In no single instance is there any mention of the existence of tubercle. In 7 of the cases the condition of the lungs is not remarked upon; in the remaining 25 those organs were free from tubercle.

Rokitansky gives us the result of his examination of 108 cases of thoracic aneurism. He states that in 5 only was any tubercle discovered, and that even in those 5 cases the tubercle was in a retrograde condition, and possibly may have existed for many years, and have been deposited before the commencement of aneurism. He further expresses a very strong opinion against the co-existence of the two diseases. He says, (a) "The arterial disease upon which spontaneous aneurism depends, is, in its more highly developed grades, very rarely associated with tuberculosis. The immunity is perhaps based upon an exhaustion of the materials for tubercle due to the deposition of a solidified blastema out of arterial blood. *A more decided immunity is brought about by aneurism in the proximity of the heart*, involving the endogenous coagulation of great fibrinous masses, and a consequent hydræmia through defibrinization of the blood."

Dr. Crisp, in his treatise on diseases of the blood-vessels, has recorded 8 fatal cases of thoracic aneurism in which a post-mortem examination was obtained, and in all of these the lungs were found free from tubercle. He has also collected 132 cases, and only mentions phthisis in connexion with two of them.

Dr. Greene has recorded 12 cases of aneurism of the arch, in 4 of which some tubercle existed.

Dr. Walshe reports 2 cases of tubercle among 14 which fell under his observation, but one of these two is spoken of as a "rather doubtful example of tubercle."

Thus, then, it will be admitted that the statistics at present before the Profession afford very strong support to the view I have taken, for the numbers above quoted show only 1 case of tubercle to every 20·18 cases of thoracic aneurism, or, in other words, a proportion of not quite 5 per cent.; while, even if Dr. Crisp's 132 cases are excluded from the calculation, we find 1 case only of tubercle to every 14·07 cases of aneurism—in other words, a proportion of about 7 per cent. I trust, therefore, unless Dr. Stokes can show by reference to a very large number of cases, that tubercle is a more common accompaniment of thoracic aneurism than appears from the statistics above quoted, that the rarity of the co-existence of the two diseases will be admitted; and it will further be allowed that I was justified in appealing to feebled or diminished respiratory murmur, as a valuable corroborative sign in the diagnosis of thoracic aneurism. I am, &c.

Henry W. Fuller, M.D., Cantab., F.R.C.P.

13, Manchester-square, December 17, 1856.

(a) See Medical Times and Gazette, December 13, 1856.

(a) Pathological Anatomy, Vol. I., p. 315.

HOSPITAL APPOINTMENTS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The remarks you made in the leader of your last number, on the disgraceful method of obtaining Hospital appointments, correspond completely with the opinion I have so long entertained, and which I have expressed over and over again. It is now not far from two years since I re-

quested, by advertisement, a meeting of the members of the Medical Profession, residing in this city and neighbourhood, to consider the plan pursued by candidates anxious for appointment to, as well as the mode of election to, Hospitals. I was not then so fortunate in bringing together such a number of gentlemen as the gravity of the subject, in relation to themselves, warranted me to expect.

Some of our professional brethren blame the public, others blame the Executive of different Hospitals for the existence of this evil; but, in my opinion, the Profession itself is alone responsible for its continuance. We know, or rather ought to know, that any act, in a case like this, which professionally degrades one member, also tends to lower the whole Profession.

I am convinced the public in general are tired, and even disgusted, with the repeatedly teasing application of different candidates and of their friends, and I am also certain that the Executive Board of any Hospital or Dispensary would attentively listen to any application made to them by the Medical Staff, especially if supported by the opinion of the whole Profession.

I hope that now when the subject has been once taken up in your pages, and the evils so clearly exposed, that you and every other journalist who are anxious for the respectability of the Profession, will not cease to use the influence of the press to bring conviction to the minds of all Medical men of the importance of trying to supersede the present system, and to substitute another mode of Medical Elections more in accordance with professional honour and dignity.

Perhaps it may not be amiss for me, and not uninteresting to you, to state that I determined to carry out, if possible, the views I entertained on this subject; and I, therefore, with the kind support and co-operation of all my colleagues, brought the matter under the consideration of the Executive Board of St. Mary's Hospital, and I can assure you that every member of this Board listened with the greatest attention to the arguments used to abrogate the present, and to substitute a new system; and it is a great satisfaction to me that the Executive of this (St. Mary's Hospital) has been the first to remove a practice which is a public nuisance, and a professional degradation.

This institution is now governed by a Board of Management which is constituted partly by Medical, and partly (but in greater number) of lay, members—who are chosen at the general annual Board, by the whole body of Trustees.

When a vacancy in any honorary medical office occurs, the Board of Management issue a notice, declaring such vacancy, and requesting candidates to send in their testimonials to the Secretary, who is to hand them over to a Medical Committee, specially called to examine and report upon them to a meeting of the Board of Management specially called to receive the opinion of this Committee, and afterwards to proceed to the election.

All or any canvassing, either by advertisement, by circular, or personally, is strictly prohibited; and, indeed, according to the rules, such a *practice* renders the candidate *ineligible*.

A rule of this Hospital discountenances pluralities of office; for if any Surgeon is elected to it who is already attached to some other Medical charity, or is Surgeon or Assistant-Surgeon in the Militia, he must resign such appointments after his election of Surgeon to this Hospital; and a further rule makes ineligible any candidate who is already Surgeon to any Parish, Poor-Law Union, or to any Club or Sick Society. Trusting this letter is not too long and tedious,

I am, &c.

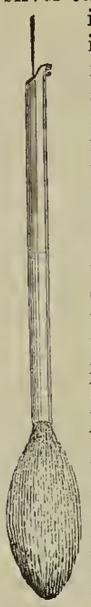
Manchester, Dec. 15, 1856. THOMAS RADFORD, M.D.

THE SELF-ADJUSTING ARTIFICIAL TYMPANUM.

[To the Editor of the Medical Times and Gazette.]

SIR,—Every reader of the *Medical Times and Gazette* is doubtless acquainted with the mode of treating deafness attended by loss or injury of the membrana tympani, which I made known to the Profession in 1848, namely, by the introduction of a small piece of wetted cotton into the passage of the ear, until it reached a particular spot, which when touched gave rise to greatly improved hearing. And every one who took interest in the subject, must have lamented the difficulties which attended the treatment from the frequent inability of the patient to accomplish so desirable a result, unless he had previously had the advantage of professional teaching. I conclude therefore that it will be gratifying to the readers of the Journal, to hear that I have succeeded in devising a very simple method by which the most timid patient may apply the remedy with safety and success, thus enlarging the sphere of its usefulness to an indefinite extent. In the absence of such a simple method, a wide door was opened to others to modify or deviate from my original idea, and advantage has been taken of the circumstance to put forward other substances than cotton, which great experience had shown me to be the best material for the purpose, and which I have never ceased to adopt. I am quite certain that in the cases in which any substitutes are found of use, the cotton will be much more so, besides being far more agreeable to the feelings of the patient in the wear of the remedy.

The invention of which I have now to speak, consists of a silver tube of small calibre, from an inch and a half to two inches in length, and a small piece of cotton to which is attached a soft pliant thread, of two inches or a trifle more in length. The silver tube is provided with a hook at one extremity to entangle the cotton if by any chance it should get disengaged, a circumstance not very likely to happen. The wood-cut represents the tube of the proper length, with the cotton well wetted, drawn through it, and the thread protruding at the hook extremity, all ready for use.



Directions.—The thread is to be drawn through the tube, so as to bring the cotton steadily against its extremity, then having wetted the cotton in tepid water, introduce it into the passage of the ear, holding the tube and the thread at the same time with the finger and thumb, then move the cotton about at the bottom of the passage until it reaches a spot which when touched produces the improved hearing; this being attained, let go the thread, and gently withdraw the tube over it, leaving the cotton in the ear, finally cut off the projecting thread, or turn it into the outer cavity of the ear. Should the cotton fall from its proper position, and the improvement of hearing be lost, it may easily be re-adjusted by using the tube as a common probe, and with it, lifting the cotton into its place.

General Observations.—For cleanliness' sake the cotton should be changed daily, and unless the discharge be very profuse, it is better not to interfere with it before applying the cotton. One of the happy results of the continued use of this remedy is to *cure* the discharge of the ear. On this, if on no other account, cotton wool will always have the preference over other substances, in this peculiar mode of treating deafness. Its chief advantages over every other material may be thus enumerated:—

1. It is more easily applied. 2. It is simple, safe, and cleanly. 3. It retains its proper position longer. 4. It causes no irritation. 5. It produces no noises in the ear whilst eating or talking. 6. It is more agreeable to the feelings of the patient. 7. It produces the highest degree of hearing, of which a patient with perforated membrana tympani is susceptible. 8. It cures the discharge of the ear which usually attends loss of the membrana tympani. This result is so uniform that I have ceased for some years past to treat ordinary cases of otorrhœa by injections, preferring to relieve the patient of the discharge by the use of wet or dry cotton, more especially as the hearing is almost always benefitted by this mode of cure, whereas the sense suffers by the application of astringent injections.

In rare cases, owing to rough usage in the application of the wetted cotton, the ear becomes irritated and rebels, as it were, against its use, but beyond the tenderness which is felt by the patient, no other inconvenience arises, and never any injury to the ear; while this stage of irritation lasts, (generally two or three days,) it is better to discontinue the cotton, and soothe the ear by fomentations and poultices. Strange to say, this irritation seldom or never recurs, and the ear ever afterwards quietly submits to the presence of the remedy.

Three or four experiments will generally enlighten the patient as to the proper size of the cotton for his individual case. Success is generally made manifest to the patient by a click or pop, arising, as I believe, from the bursting of a small bladder of air formed by the discharge which is usually present. Sometimes it is necessary to lift up the cotton after

it is introduced, which, as I said before, can be done with the silver tube used as a probe, for it is a *sine quâ non* that the cotton should *not* entirely cover the opening into the cavity of the tympanum.

It is evident that unless some noise is going on of uniform loudness at the time of the experiment, the patient would experience a difficulty in estimating the success of the remedy. In my own consulting room, I have an instrument which I have called an *acoemeter*, having gradations of sound, and this is set going before commencing and during the application of the cotton. The patient is then directed to make some sign the moment success is attained. A metronome would answer the same purpose, and in the absence of any instrument of the kind, scraping the floor with the foot, rubbing the hand over the clothes, or snapping the finger and thumb while manipulating, will be sufficient to indicate to the patient the attainment of his wishes.

In conclusion, I may truly say that nothing can be more simple than the invention, and nothing more important than the effect it is intended to produce, for it is no less than the restoration of the blessing of hearing to a class of persons whose disease until the application, of the cotton was discovered, was deemed incurable. I am, &c.

15, Savile-row, December 9, 1856. JAMES YEARSLEY.

GANGRENE OF THE TESTIS.

[To the Editor of the Medical Times and Gazette.]

SIR,—In my last Saturday's number of your excellent periodical I was much interested by an account of a case of gangrene of part of the testicle, under Mr. Stanley's care. You say, "The only other example of gangrene of the testis which has ever fallen under our notice, was one which the late Mr. Sudlow, when House-Surgeon to Mr. Stanley, had under care, and which he recorded at length in his prize essay on the diseases of this gland." I beg to inform you that, when a pupil with my late father in 1832, a similar case occurred in his practice at Salcombe, Devonshire. The only notes I have of the case are, that he was a sailor, aged 35, attacked with abscess of the right testis. About one-half of the testis, with a large portion of the scrotum, sloughed away. It was treated with quinine and decoction of cinchona, with yeast poultices applied to the part, with a very liberal allowance of wine, porter, etc. The man recovered well. There was a large scar, and the remaining part of the testis adhered to the scrotum. The patient had had syphilis some years before, but we could not discover that he had suffered from any secondary symptoms. He could not account for the attack. He did not recollect ever having received any injury of the part. Thinking you might like to have the account, I send it to you. I am, &c. R. GILLARDS.

Thorne, Yorkshire, December 11, 1856.

ARTIFICIAL DIGESTION.

[To the Editor of the Medical Times and Gazette.]

SIR,—In reply to such of your correspondents as you have informed me desire information respecting the administration of Pepsine, I have the pleasure of stating that the dose of the "Poudre nutrimentive," which contains that principle, is about 15 grains. It may either be given dry at the commencement of a meal, or in a spoonful of cool soup, or dissolved in sweetened water or some agreeable syrup. The cases to which alone its use is applicable are those in which the digestive process is at fault in consequence of absence or deficiency of the natural secretion of the stomach. It is clear then, that, as a variety of other conditions may give rise to disorder of this process, the success of the remedy in any individual case must depend upon the accuracy of the diagnosis. The pepsine may thus be of little service at one period of the treatment of a dyspeptic patient, because, for instance, hyperæmia or a neglected condition of the alvine function may require the first attention of the Physician, but yet be applicable at another stage of the treatment. It appears to me, however, unnecessary to occupy your valuable space with further details, as I have so lately communicated to the Profession the facts, with full particulars upon all these points, in the pamphlet upon "Artificial digestion, etc." which you did me the honour to review in a recent number of your Journal.

I am, &c. EDWARD BALLARD, M.D.

42, Myddelton-square, December 11, 1856.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

DECEMBER 9, 1856.

CÆSAR HAWKINS, Esq., President, in the chair.

Mr. LEE read a paper on

A CASE OF PAINFUL SWELLING OF BOTH LEGS,

RESEMBLING PHLEGMASIA DOLENS, WITH EXTENSIVE OBSTRUCTION OF BOTH FEMORAL VEINS, IN A PHTHISICAL PATIENT.

This woman was seized, while a patient in the Brompton Hospital, with pain, tenderness, and swelling, in the upper part of both thighs; the symptoms subsequently extended down the extremities, the legs and feet becoming œdematous. The right limb was the first affected. There were no acute inflammatory symptoms. The affection continued until her death, which occurred about seven weeks after the first appearance of these symptoms. On examination after death, the lungs were found infiltrated with tubercles. The left iliac and femoral veins were completely plugged. The right femoral vein was found to be occupied for eight or nine inches by a continuous false membrane, and obstructed, more or less perfectly, at different parts by fibrinous deposit. The false membrane was nowhere so adherent to the lining membrane as not to be easily separable from it; and there were portions of the latter over which the false membrane passed which were in no way altered from their natural character. The author proceeded to argue that such a case could not be regarded as having a local origin, and consequently a starting point from which inflammation might extend, as is stated to be necessary in phlegmasia dolens, and which affection his case accurately simulated in all respects but the absence of any uterine affection; and also to contend that phlebitis may arise independently of any extension of inflammation, and in such instances can only have for its cause the stagnation of the vitiated blood in the vessels. The author quoted a case recorded by Dr. M'Clintock in the *Dublin Quarterly Journal* for August last, in which inflammation of the large veins of the right side of the neck took place in a woman who had a puerperal affection; and detailed several experiments on dogs, instituted for the purpose of proving his arguments.

Dr. THEOPHILUS THOMPSON testified to the accuracy of the account given by Mr. Lee of the case described by him, excepting that the patient had been the subject of phthisical symptoms six years, and not eleven, prior to death. The obstruction of the veins had no relation to the amount of disease of the lungs. In the case in question the amount of tubercular deposit was not great, and there were no cavities of considerable size. There was ulceration of the mucous membrane of the intestines, and also (as in two other cases which he recollected of a somewhat similar nature) some tenseness and tenderness of the abdomen, symptoms almost leading one to suspect inflammation of the peritoneum. In a case of a lady 35 years old, one of the most striking symptoms was a marked murmur in the jugular veins; a symptom which he believed to be usually associated with a diminished proportion of fibrin in the blood. None of the cases he had seen were associated with any very decided marks of inflammatory action, and all of them appeared to lead to the conclusion to which Mr. Lee had arrived, that the blood, owing to some peculiarity, more readily absorbed certain morbid elements, and was less able to resist the contaminating influences.

Dr. CURSHAM mentioned the case of a phthisical subject between 30 and 40 years of age, who suffered from œdema of the left leg, and after death there was found an obstruction in the femoral vein as far as the popliteal. The lungs were extensively diseased on both sides, one lung being completely full of tubercles. The woman had borne children. There was considerable ulceration of the intestines, but no disease of the uterus. He had seen a similar case two years ago, that of a little boy in whom, after death, there was found an obstruction in the lower part of the vena cava, and in both femoral, down to the popliteal veins. There was ulceration of the intestines, but no disease in the pelvic or abdominal viscera.

The PRESIDENT asked whether there was suppuration going on, and whether there was anything in Mr. Lee's case to take it

out of the ordinary category of abscesses producing secondary deposits.

Dr. Barclay said he had not seen many cases of idiopathic phlebitis, but he had notes of one or two, in which no suppuration was discoverable,—cases of chlorotic females, in whom there was some derangement of the uterine function.

Dr. Peacock had seen cases of obliteration of the renal and portal veins without suppuration, and he thought those were more unexceptionable instances of idiopathic phlebitis (if such a disease existed) than those cases in which suppuration was going on in other parts of the system.

Mr. Lee believed that wherever the blood would stagnate, from whatever cause, phlebitis would be produced. The cases that had been mentioned appeared to confirm the position that inflammation of the veins was not propagated by continuity of service, but that the disease was carried forward by the blood. The same remark might apply to the arteries. As long as there was a perfect lining membrane, there could be no effusion of lymph; but when inflammation was excited in the artery by deposit between its coats, or the coagulation of blood upon the surface, there might be effusion into the arterial canal.

Mr. Curling gave an account of a

LARGE MYELOID TUMOUR OF THE THUMB.

M. S., a married woman, aged 32, was admitted into the London Hospital, July 8, 1856. About twenty years ago she first noticed an enlargement of the distal end of the metacarpal bone of the right thumb, which gradually increased, without pain, until it attained a great size. About six months since it became painful, and ulcerated in two places, giving exit to a very fetid discharge. On her admission, the tumour was found to be situated between the thumb and first and second fingers, was irregularly spherical, hollow and measured six inches in length and five in depth. It was hard and nodulated, consisting, apparently, of a hollow, osseous case. The skin covering it was tense, red, and polished. The tumour implicated the metacarpal bones of the thumb, fore, and middle fingers. At the back of the tumour were two rounded openings, having smooth bevelled margins, each about the size of a half-crown piece, and communicating with the large cavity in the interior of the tumour, which was lined in some parts by a smooth, laminated membrane, but chiefly by numerous granulations and small excrescences, thickly studded, giving a warty or cauliflower appearance to the part. An abundant fetid discharge constantly proceeded from the cavity. The woman suffered so much, that although weak and only just lately confined, the tumour was removed immediately after her admission. She perfectly recovered. A minute microscopical description of the tumour made by Dr. Andrew Clark was given in this paper, and the author called attention to the following characteristics of the case:—the very slow growth of the tumour; its large outgrowth of bone, and hollowness, the latter part being probably due to the degeneration and softening of the solid myeloid elements, and their escape by the ulcerated openings; the combination of an osteoid growth with enchondroma, myeloid disease, and epithelial cancer; the extension of myeloid disease to neighbouring bones by contiguity or encroachment, a circumstance in the history of the disease which, the author believed, had not hitherto been remarked.

Mr. Prescott Hewett said he had heard an opinion expressed, that the tumour was not myeloid, but enchondromatous, and suggested that the preparation should be submitted to referees for their opinion.

Mr. Curling, while offering no objection to the course suggested, said that Dr. Andrew Clarke and Mr. Henry Gray had pronounced the tumour to be of a myeloid character.

Mr. Solly mentioned a case in which

A LARGE CYST WAS SUCCESSFULLY REMOVED

from the upper part of the neck of a young woman, aged 27, who was considered at birth to have been the subject of spina bifida.

The patient, a fair delicate looking young woman, consulted the author in August last with the object of having a tumour removed. The tumour was hard and unyielding, about the size of a goose's egg, flattened anteriorly; it hung by a broad thick pedicle to the upper part of the neck, a little below the occiput. She suffered no pain, but it was inconvenient from its weight and position. At birth, the tumour was about the size of her head, measuring ten inches and a-half transversely at its connexion with the neck, and fourteen inches longitudinally; the lower part was of a dark colour, the skin being very thin, and fluid frequently oozed from that part. It increased for the first three years, but decreased from her third to her sixth year. Until two years of age she was very weak, and her left arm and leg were often much swollen; at this time any movement of the body produced pain. From her second year her health improved, and at four and a-half she walked alone. She passed through all the diseases incidental to childhood well up to twelve years of age,—at that period she had a fit, preceded by most violent pain in the head, for which she was bled from the arm, and recovered perfectly; from that time to the present she has enjoyed uninterrupted health. The tumour was seen in early life by several of the most eminent Surgeons in town, but nothing was done. Finding that by pressure he could detect no cavity within the tumour; that manipulation gave no pain or inconvenience to the nervous system; having no doubt about the solidity of the pedicle; being able distinctly to feel the arches of the cervical vertebræ underneath it, and being consequently assured that no canal of communication now existed between the tumour and any other part, whatever might have originally been its nature and connexion, Mr. Solly resolved to remove it. The operation was done on the 25th of August, and the patient is now perfectly well. The hæmorrhage was very free, requiring ligature of six large vessels, and other means for restraining it. The wound healed very slowly. There was severe pain in the head at frequent intervals after the operation, but the author considered it hysterical, and it yielded to the use of aconite. A section of the tumour exposed a large cavity in the interior; a saw was required to divide it, in consequence of the walls containing firm calcareous plates. The cyst, which was about equal to two-thirds of the size of the tumour, was lined by a smooth membrane, and contained a viscid yellowish fluid not unlike white of egg; it was completely closed, but the line of junction could be clearly traced by a whitish yellow line of ligamentous tissue running through the pedicle, which exhibited under the microscope all the characters of the yellow elastic tissue. The firm walls of the tumour were found to be composed of dense fibrous tissue, with calcareous granules interspersed throughout it, these latter consisted of carbonate and phosphate of lime not shaped into bone tissue.

The author considered, upon a review of the case subsequently to the operation and the drawing up of his paper, that the tumour in all probability originally took its origin from the cranium, and not from the spinal canal.

The President asked whether Mr. Solly had carefully examined the skull, and found no deficiency.

Mr. Solly replied that he had, and that no deficiency was discoverable. The patient was now quite recovered, and free from any unpleasant symptom.

Mr. Prescott Hewett, who had examined the case, said that when the child was born the occipital bone was lying on the tumour, which afterwards gradually dropped down. He knew of no case of spina bifida where there was so large a tumour about the cervical region. Though it was originally stated on high authority that the tumour was spinal, it might not have been meant that it actually came out of the spine, as he had seen in a museum a preparation of a reported case of spina bifida, the catalogue stating that the tumour came out of the occipital bone. There was probably at that period no accurate notion as to the origin of the tumours, and any tumour occurring about the occipital region might have been referred to spina bifida. In the present case the long and slender pedicle came out between the occipital protuberance and the foramen magnum, and the tumour dropping down behind the spinous processes and covering them, the case might not unnaturally have been mistaken for spina bifida. In Paris, in 1837, a child having a tumour of a similar character was taken to several hospitals, and the case was pronounced by the first surgeons to be one of spina bifida, which ought not to be touched. A gentleman, however, performed an operation, and the child died, but the tumour was found to be connected with the occipital region.

Mr. Charles Hawkins referred to a tumour in the collection of the Pathological Society, taken from a gentleman who had had it from the period of birth, coming out from the sacrum. The tumour decreased in size at the period of manhood, but the gentleman fell upon it, and death resulted. When first seen it was supposed to be of spinal origin, but in

the interior there were found several pieces of bone resembling the bones of a fœtus, and the supposition was that the tumour was a portion of a twin attached to the patient in the womb, and remaining there during life.

Mr. Solly thought the cases were not similar. In the case of imperfectly developed fœtuses some portions of bone always remained; but in the case he had related there was only a calcareous deposit.

The Society then adjourned.

OBITUARY.

THE LATE DR. WILLIAM LINDSAY, R.N.

We regret to record the death of one who was no mean ornament of the Naval Medical body—Dr. William Lindsay, Inspector of Hospitals and Fleets, resident at the Royal Naval Hospital at Haslar. A brief sketch of his career may not be unacceptable to our readers. The Doctor, entering the Naval Service in 1824, was present at the Battle of Navarino, as Senior Assistant-Surgeon of H.M.S. "Genoa." He was promoted in the year following, and was appointed to the "Blossom Surveying Frigate" in the West Indies, where he remained three years, during which time the ship was visited with a terrible outbreak of yellow-fever; and although he also suffered severely from the same fever, yet with that unyielding fortitude which was one of his characteristics, he had himself borne round in a cot to visit the sick and prescribe for them.

He was subsequently employed four years—1834-37—in the "Tyne," in the Mediterranean, Captain Earl Talbot; and in 1838 was appointed to the Flag-Ship, "Wellesley," in the East Indies and China, where he served during the war in China until 1843, when the promotion he had so well earned was conferred on him. His services in the Chinese seas were of the most trying description, not so much from the number of wounded to take care of, as from the great amount of mortal sickness with which the China campaigns were attended; and there is reason to believe that the seeds of the disease which cut him off so prematurely were sown in China.

From 1844 to 1847 Deputy-Inspector Lindsay was employed in the West Indies, in the squadron under the command of Admiral Sir Charles Adam. In 1848 he was sent as Medical Commissioner to Ireland, to succour the inhabitants perishing under famine fever. In the same year he was appointed to Malta Hospital, where he remained till 1851. During the period of his service there in 1850, cholera broke out in the island and squadron. At this juncture an instance of Dr. Lindsay's judgment and forethought occurred which did him great credit. After two or three sporadic cases had happened, the Doctor repaired to the Commander-in-Chief of the Naval Forces and emphatically warned him of the impending danger. This was at least a couple of weeks before any general alarm had been raised. This warning, unhappily, was unheeded; the ships remained in port, and the consequence was, the death of several hundreds of prime seamen and marines; another instance of the necessity of giving more power to our Medical Departments. After the cessation of the epidemic, Sir William Parker wrote a despatch to the Admiralty, praising the Medical corps in general for their zeal and attention, but especially singling out Dr. Lindsay by name.

In 1851 Sir William Burnett recommended Dr. Lindsay to Sir Francis Baring as the fittest person to fill the most important situation in the Surgical Department of the Naval Service—that of Deputy-Inspector of Haslar Hospital. This office he most creditably filled till the middle of last year, when the retirement of Sir John Richardson raised him to the highest position but one he was eligible to fill; he became Senior Medical Inspector of Haslar.

And now the Doctor, after nearly thirty years of meritorious service at home and abroad, in all climates, had reached a very enviable position; he was loved and respected by those who knew him best; he was in the enjoyment of good bodily health in a contented, happy mind; easy in his fortune; little past the prime of life; recently happily married. But in the midst of his happy and useful life he was taken away. He died on the 13th instant, aged 57, from cancerous disease of the stomach. He was, indeed, a fine specimen of the genus Homo. Though kind and conciliatory in his manner, he was too honest a man for any over-acted cordiality. In his intercourse with his fellows there was no mistaking that one was dealing with a sterling, straightforward man, in whom thorough confidence might be placed—*Requiescat in pace.*

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the meeting of the Court of Examiners on the 5th instant:—

Adams, William, Ottoman Army.
Carr, William Thomas, Newcastle-on-Tyne.
Davies, J. W., Blackwood, near Newport, Monmouthsh.
Head, Richard Lovell Bluett, Falmouth.
Lewer, Robert, Wimborne, Dorset.
Ligertwood, William, Aberdeen.
Pavey, George, Reading, Berkshire.
Procter, James, Congleton, Cheshire.
Rule, Samuel, Plymouth.
Stone, Charles James, Clifton-road, St. John's-wood.

The following Members were admitted Fellows at a meeting of the Council on the 11th inst.:—

Barker, Daniel, Staleybridge.
Bissell, John Henry, Sleaford, Lincolnshire.
Farquhar, Alexander, Strichen, North Britain.
Gibson, John Rowland, Holborn-hill.
Hodson, Thomas, St. John's-wood.
James, Henry, Artillery-place.
Lindap, William, Newport.
Lipscomb, John Thomas Nicholson, St. Alban's.
Longmore, Thomas, Army.
Williams, William, Dolgelly.
Wilson, John Bateman, Whitehaven.
Wraith, Samuel Hope, Over Darwen, Lancashire.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 11, 1856:—

Brickwell, John Smith, Sawbridgeworth, Herts.
Giles, Joseph, Frome, Somerset.
Jollye, Edward William, Wingfield, Sussex.
Popham, Benjamin Francis, Cork, Ireland.
Powell, George Robert, Liverpool.

DEATHS.

Gepp.—December 11, in the 89th year of his age, George Asser Gepp, Esq., of Chelmsford, Senior Fellow of the Royal College of Surgeons, and Senior Member of the Livery of the Society of Apothecaries, London. F.R.C.S. (Nom.) 1844; M.R.C.S.E. 1791; 57 years Surgeon to the Gaol and House of Correction at Springfield.

Lindsay.—Dec. 13, at the Royal Hospital, Haslar, William Lindsay, Esq., M.D., aged 57, Senior Medical Inspector of that establishment.

Langstaff.—On the 6th, of apoplexy, at his residence, 9, Cambridge-square, in his 79th year, Joseph Langstaff, Esq., F.R.C.S., of the Hon. East India Company's Medical service. Mr. Langstaff obtained his commission in 1799, left for India the same year, and remained in the East until the end of 1839. During the forty years which he thus passed in active service in India, he proved a valuable and energetic public officer; and passed through all the grades of the medical service, terminating his public career as President of the Medical Board of Calcutta. In this lengthened period, Mr. Langstaff took a part, as an esteemed and valued medical officer, in many of the important events which characterise Indian history during the first half of the present century. He was the medical attendant attached to Lord Metcalfe's embassy to Runjett Singh, from whom he personally received many evidences of esteem. He was also attached to the Marquis of Hastings' army in the Mahratta campaign in 1817, when the cholera made its first appearance. He retained to the last a vivid recollection of all the circumstances connected with the origin of this pestilence, which has since then devastated the world. Mr. Langstaff returned to his native country in the possession of good

health, and has lived many years to enjoy his hard-earned honours in the bosom of his family. At his death he was, we believe, the oldest medical officer of the Bengal Presidency. Mr. Langstaff was the father-in-law of Dr. Henry Bennet, of Grosvenor-street.

MACREIGHT.—Dec. 10, at Hauteville, Jersey, D. C. Macreight, Esq., M.D., in his 58th year.

STERRY.—Dec. 1, in the 86th year of his age, Samuel Henry Sterry, Esq., of the Grange Road, Bermondsey. The Medical profession has sustained a severe loss. He formed one of the last surviving links between this and the past generation. The son of an Essex clergyman, he was left an orphan very early in life. After a dressership at St. Thomas's under Mr. Birch, he became a member of the Royal College of Surgeons, and commenced practice in Bermondsey in 1794. Without connexions and without friends, his life is a striking proof to the younger members of his profession, that perseverance and integrity bring their own reward even in this world; as they realized for him a competency which enabled him to pass the latter days of his life in ease and comfort. But however deeply his loss may be felt by the profession, far more deeply will it be realized by the large number of those who shared his friendship, and by the numerous recipients of his private charity. For more than half a century he has been known as the firm supporter and generous patron of the School for the Indigent Blind. His attendance at the weekly committees was most regular and punctual. For more than 40 years he very rarely missed a meeting, and all this whilst engaged in the active pursuit of a large and laborious practice in a poor and densely populated neighbourhood. Of late years, he devoted several hours almost daily to this institution. He was also an active member of the committees of the School for the Deaf and Dumb, the Refuge for the Destitute, and of King's College Hospital; and it will be long ere these institutions meet with a more zealous or more sincere friend.

NORTH LONDON, OR UNIVERSITY COLLEGE HOSPITAL.—The Committee, at their meeting on Wednesday last, received notice of a Legacy to the Hospital of £5000, free of duty, bequeathed by the late John Kenyon, Esq., of Devonshire-place. This gratifying communication was made to the Committee by James Booth, Esq., and Robert Hawthorn, Esq., executors of Mr. Kenyon.

THE MATERNITÉ HOSPICE.—M. Danyau is to be promoted to the office of Chief Surgeon, on the approaching retirement of M. Paul Dubois.

ELECTIONS AT THE ACADÉMIE.—M. Nélaton has been elected in the most flattering manner into the Académie, 60 out of 78 Academicians having voted for him. In the Pharmaceutical section, the contest for the vacancy will be sharper; the Committee having placed MM. Gohley, Mialhe, and Poggiale on the list *ex æquo*, leaving to the Académie the responsibility of making the choice. It is believed that this will fall on M. Mialhe.

THE COLOSSEUM, REGENT'S-PARK.—Great preparations are making for the re-opening of the Colosseum, in the Regent's-park. The Colosseum has been taken by a Company, and has been placed under the management of Dr. Bachhoffner (formerly of the Polytechnic).

FOUNDATION OF NEW PRIZES.—M. Barbier, formerly Senior Surgeon of Val-de-Grâce, has left an annual sum of 3000 francs to the Académie de Médecine, to found a prize for the discovery of effectual means of cure in diseases usually reputed incurable, as hydrophobia, cancer, epilepsy, scrofula, typhus, cholera, etc.; another for the invention of instruments or apparatus of general utility, and superior to any hitherto employed or devised; and a third to be decreed for a precious discovery in surgical, medical, or pharmaceutical science. When not decreed in favour of any candidates, the amount of the prize in each case to be added to that of the next year.

COMPLIMENT TO A MEDICAL OFFICER.—A handsome compliment has been paid to Mr. R. Adams, who for several years held the office of Assistant-Surgeon at the Rainhill County Asylum. Mr. Adams having resigned his situation to take a more lucrative appointment in connexion with a similar institution in the south of England, was presented with an elegant and elaborately chased silver goblet. The inscription, which is as follows, will explain the object of the presentation:—"Presented to Richard Adams, Esq., by the officers and servants of the Rainhill County Lunatic Asylum, as a token of their esteem and regard, on his retirement from the office of Assistant-Surgeon." The goblet was from the manufactory of Mr. Mayer, of Liverpool.

SCARLET AND TYPHUS FEVER have been very prevalent in some parts of the South of England among grown-up persons.

MORTALITY NOTABILIA.—The total number of deaths registered in the week that ended last Saturday is 1243, and exhibits a decrease on the number for the preceding week, which was 1318. The mean temperature, which had been 41° in November, fell to nearly 35° in the first week of this month, and rose again last week to 51·3°. In the ten weeks corresponding with last week of the years 1846-55 the corrected average number of deaths was 1418. A difference of 175 is thus obtained in favour of the present return; but it should be observed that the series of weeks, from which the average is derived, embraces a week in 1847, when the mortality was more than doubled by influenza. The deaths from diseases of the respiratory organs, which in the previous week were 368, declined last week to 287. The deaths by bronchitis declined in the two weeks from 194 to 159; those by pneumonia from 125 to 88. In the same periods phthisis or consumption was fatal in 164 and 130 cases. Deaths from small-pox have not averaged more than 5 in a week during the last two months; and in the greater part of the present year there has been unusual immunity from its attacks, or at least from their fatal consequences.

BIRTHS.—The births of 890 boys and 821 girls, 1711 children, were registered. Average 1461.

METEOROLOGY.—The mean height of the barometer in the week was 29·219 in. The lowest reading occurred at noon on Saturday, and was 28·73 in.; and the highest was 29·98 in. on the evening of the same day. The mean temperature of the week was 51·3°, which is 10·6° above the average of the same week in 38 years. The mean daily temperature was above the average on every day. On Sunday it was 56°, which is 15° above the average; it was nearly as much above the average on the two following days; and on Wednesday the excess was 11·3°. The highest temperature in the week occurred on Sunday, and was 58·9°; the lowest was 41·6°, and occurred on Saturday.

THE following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	5	6	2	6	9
North	490,396	2	11	6	4	3	9
Central ..	393,256	2	7	9	10	1	6
East.....	485,522	1	6	11	12	3	21
South	616,635	..	2	14	13	1	12
Total..	2,362,236	5	31	46	41	14	57

DEATHS IN PUBLIC INSTITUTIONS for the Weeks ending Saturday, December 6 and 13:—

	In the Week ending Dec. 6.			In the Week ending Dec. 13.		
	Males.	Females.	Total.	Males.	Females.	Total.
Workhouses..	64	71	135	56	59	115
Prisons	..	..	..	3	..	3
Military and Naval Asylums ..	8	..	8	7	..	7
General Hospitals	33	14	47	71	43	114
Hospitals for Special Diseases ..	5	3	8	2	1	3
Lying-in Hospitals	..	..	..	..	1	1
Military and Navy Hospitals ..	7	..	7	2	..	2
Hospitals and Asylums for Foreigners	1	..	1	2	..	2
Lunatic Asylums	2	6	8	6	..	6
	120	94	214	149	104	253

ORIGINAL LECTURES.

LECTURES
ON
GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.,
Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

LECTURE IX.

(Continued from page 588.)

The general arrangement of the ambulacral vascular system has been already sketched. In the *Echinidea*, the circular vessel which lies between the œsophagus and the alveoli, is usually provided with five sacculated "polian vesicles", and there is a single madreporic canal, membranous in *Echinus* but calcareous in *Cidaris*, which extends nearly in the axis of the body from the circular vessel to the madreporic tubercle. Five radial vessels run up the middle of the inner surface of the ambulacral plates, which they reach by passing beneath the rotulæ, when these exist, and then through the arch of the *Auriculæ;* these give off branches on each side to the feet. The circular ambulacral vessel of the *Spatangoida* has no polian vesicles, and no vesicular appendages, in the Clypeasters there are many vesicular appendages, but no polian vesicles. In most *Echinoida* all the feet are expanded into sucking disks at their extremities, and are here strengthened by a calcareous plate or plates, but in *Echinocidaris* and some other *Echinoida* the feet of the oral portion of the ambulacra only, have this structure, while those of the apical portion are pectinated, flattened, and gill-like. Again in the heterogeneous ambulacra of the *Clypeastroida* and *Spatangoida*, the forms of the feet vary much. Thus Müller distinguishes four kinds of feet in the *Spatangoida*—simple locomotive feet, without any sucking-disk; locomotive feet, provided with terminal suckers, and containing a skeleton; tactile feet, whose expanded extremity is papillose; and gill-like feet, triangular, flattened, more or less pectinated lamellæ. Two or three of these kinds of feet may occur in any given ambulacrum, and those which lie within a semita (*infra*) are always different from the others.

In the *Clypeastroida* the petaloid portions of the ambulacra possess branchial feet, interspersed with delicate locomotive sucking feet, provided with a calcareous skeleton. The latter kind alone extend on to the oral portions of the ambulacra.

In the *Ophiuridea* and *Crinoidea*, and in the *Asteridea* without anal apertures, the feet are tentaculiform, but in the *Asteridea* possessing an anus, they are provided with a terminal sucker, without any skeleton.

In the *Ophiuridea* and *Crinoidea* there are no vesicles at the bases of the feet, while in the *Asteridea* they are well developed, but simpler than those of the *Echinidea*.

The madreporic canal is, in the *Asteridea*, strengthened by a remarkable calcareous framework, which has given rise to the notion that it is filled with sand, and to the name "sand-canal," which has been applied to it. The canal terminates in the madreporic tubercle, which is always placed interradially on the antambulacral surface of the starfish. In some genera (*Echinaster*, *Ophidiaster*) there are many canals, and many tubercles. In the *Ophiuridea* the madreporic canal, whose walls are strengthened by perforated calcareous plates, ends upon the inner surface of one of the *scuta buccalia*, which usually presents a boss or umbo externally. The vessels of the ambulacra run in the narrow canal, between the series of vertebral ossicles and the ventral plates of the arm. There are four Polian vesicles. In the *Crinoidea* the structure of the ambulacral vascular system is but very imperfectly made out, neither the circular vessel nor the madreporic canal having been clearly determined. The ambulacral vessel is supported by the series of sub-ambulacral plates, already described in the calycine portion of the ambulacra, in *Pentacrinus*.

The circular ambulacral vessel of the *Holothuridea* surrounds the œsophagus, below or deeper than the oral skeleton, and sends up five longitudinal branches, which traverse notches or holes in five of the pieces of that skeleton. These, therefore, correspond with the *rotulæ* of Echinus, while the intermediate pieces answer to the *alveoli*. The longitudinal vessels, just before they traverse the calcareous pieces, send branches to the tentacles, which, as they enter the latter, give off long cœca, which lie on the outer side of the calcareous ring; they then pass on to the parietes of the body, and run along the ambulacra, supplying the feet with branches. In some *Holothuridea* the feet are scattered over the whole ambulacral region, as well in the inter-ambulacra as in the ambulacra. In others (*Psolus*) feet are developed only from three of the five ambulacra; while in the *Synaptæ* and *Chirodotæ* there is only a circlet of feet around the mouth. In these latter cases, however, the vessels of the ambulacra exist, although they supply no feet. One or many Polian vesicles and madreporic canals are connected with the circular canal, and the latter organs present the remarkable peculiarity of not being in any way attached to the parietes of the body, but hanging freely down into its cavity, like the Polian vesicles, from which they are distinguished by the calcareous skeleton which they contain.

Now from what has been stated it will be observed, that, as Müller has particularly shown, the relations of the ambulacral vessel to the ambulacral skeleton are very different in different orders of *Echinodermata* (Fig. 2, F. G. H.). In the *Echinidea* the ambulacral plates of the skeleton lie altogether external and superficial to, the ambulacral vessel and nerve. Nevertheless, in the auriculæ, in the incomplete ambulacral processes of *Cidaris*, and in the complete internal arches of the ambulacral plates of *Clypeaster* we have, as it were, rudiments of a skeleton internal to, and deeper than, the vessel and nerve. In the *Asteridea* this internal portion of the ambulacral skeleton is alone developed, being represented by the ambulacral ossicles, the ambulacral vessel and nerve, covered only by muscle and integument, lying in the groove which these ossicles form by the apposition of their inner ends. The vertebral ossicles of the *Ophiuridea* are, as it were, the ambulacral ossicles of the *Asteridea*, united in pairs, fixedly instead of moveably; the vessel and nerve lie external and superficial to them, but are covered not merely by integument, as in the *Asteridea*, but by a calcareous plate developed in that integument. They are thus inclosed within a complete calcified canal, corresponding with that in *Clypeaster*, though formed in a different way.

In the *Holothuridea* and *Crinoidea*, the vessel and nerve are covered merely by the soft integument; but in the calycine ambulacra of *Pentacrinus*, the subambulacral plates represent the vertebral ossicles of the *Ophiuridea* and *Asteridea*.

The nervous system of the *Echinodermata* consists of a ring surrounding the œsophagus, superficial to those of both vascular systems, and of five cords, which lie in the ambulacra superficial to the water-vessels. The ambulacral cords are larger in the middle than at either end in *Echinus*, and the circle around the mouth has rather the nature of a commissure than of a ganglionic centre. Many star-fishes, and *Synapta* among the *Holothuriadæ* have the curious habit of breaking themselves up into fragments when taken; but Müller has pointed out the very curious fact, that in *Synapta*, at any rate, this act may be prevented by cutting through the oral nervous circle.

The nervous circle of *Echinus* surrounds the œsophagus near the mouth, and is inclosed by the alveoli, between which the ambulacral nerves pass to reach it. In the *Asteridea*, the circle lies at the extreme limit of the soft membrane, which surrounds the mouth, and may be readily exposed by cutting away the hard inter-ambulacral oral angles or lips.

In the *Ophiuridea*, Müller discovered the nervous circle lying in a groove on the deep or upper surfaces of the plates which constitute the angles of the mouth. The nervous ring of the Crinoids has not yet been made out; but in the *Holothuridea* it lies immediately beneath the perisoma of the oral disk.

The only known organs of sense in the *Echinodermata* are the pigmented "eye-spots," developed in connexion with the ends of the ambulacral nerves in *Echinidea* and *Asteridea*, and on the oral nervous circle in many *Holothuridea*.

The perivisceral space is filled by a corpusculated fluid which represents the true blood, and is kept constantly in motion by cilia distributed over the parietes and the contained viscera. The aëration of this fluid is effected in the *Echinoida*, except *Cidaris*, by special branchial plumes developed from the oral perisoma; while in the *Clypeastroida* and *Spatangoida*,

which possess those modified feet known as ambulacral gills, there are no such organs.

In the *Asteridea* multitudes of thin-walled cœcal processes which project freely upon the antambulacral surface probably serve the same purpose; while in the *Ophiuridea* and *Crinoidea* no special respiratory organs are known to exist.

Many *Holothuridea*, on the other hand, are provided with a very elaborate breathing apparatus, in the form of two ramified cœca, or "branchial trees," which lie in the perivisceral cavity; they open into the cloaca, by whose contraction water is continually pumped into and out of these aquatic lungs, and the perivisceral fluid which bathes them must in this way be efficiently aërated.

Besides this true blood-system, the *Echinodermata*, like the *Annelida*, possess a system of "pseudhæmal" vessels, containing a fluid which, as in the *Annelida*, is commonly called "blood," while its receptaeles are termed "blood-vessels." Much obscurity hangs over this part of Echinoderm anatomy, the investigation of which is surrounded with great practical difficulties. The following facts, however, appear to be pretty well determined:—In the *Echinidea* a circular vessel surrounds the anus, whence branches are given off to the genitalia and to the alimentary canal; and besides these there is the so-called "heart," a somewhat fusiform contractile vessel running parallel with the madreporic canal, and terminating inferiorly in a circular vessel which lies immediately superficial to the circular ambulacral vessel around the œsophagus.

In the *Asteridea* there is an anal circlet and a "heart" analogous to those of the *Echinidea*. The "heart," furthermore, opens into a circular vessel which surrounds the mouth between the ambulacral and the nervous circlets, and in close contact with the latter.

Nothing certain appears to be known as to the arrangement of the pseudhæmal system in the *Ophiuridea* and the *Crinoidea* (a).

In the ordinary *Holothuridea*, such as *Holothuria*, a vessel runs along each side of the alimentary canal, and one of the two vessels divides in the middle of its course into two divergent branches, one remaining attached to the intestine, while the other is free for a certain distance, but eventually re-enters its fellow. The two are connected by a double set of transverse vessels, forming a kind of *rete mirabile*, and into the meshes of the latter the ramuscules of one of the two respiratory trees are received: the vessels, however, do not, as is frequently stated, ramify upon the respiratory cœca. The other respiratory tree is free, and unconnected with any vessels.

The intestinal vessels unite into a circular vessel, close to that of the ambulacral system, from which branches are sent up along the œsophagus and on to the Polian vesicles. Furthermore, the nerves are all inclosed within vessels, but the connection of these with the preceding is not understood. In those *Holothuridea* which possess no respiratory tree (*Chiridota*, *Synapta*, &c.), there is no *rete mirabile*.

In *Synapta* the ramifications of the vessels in the mesentery terminate, according to Leydig, in open, ciliated mouths, shaped like a cornucopia, and having a striking resemblance to the terminations of the water-vessels in the *Rotifera*.

All the *Echinodermata*, with the exception of the *Synaptæ*, appear to be dicœcious, and their reproductive organs are usually of a very simple construction, consisting in the *Echinidea*, *Asteridea*, and *Ophiuridea*, of more or less racemose glands opening externally by the genital pores.

In the *Echinidea* the genital pores are situated in distinct plates at the apical extremities of the inter-ambulacra. In the *Asteridea* there are no distinct genital plates, and the apertures are usually situated between the arms; in the *Ophiuridea* the genital apertures are vertically elongated slits placed at the junction of the arms with the body.

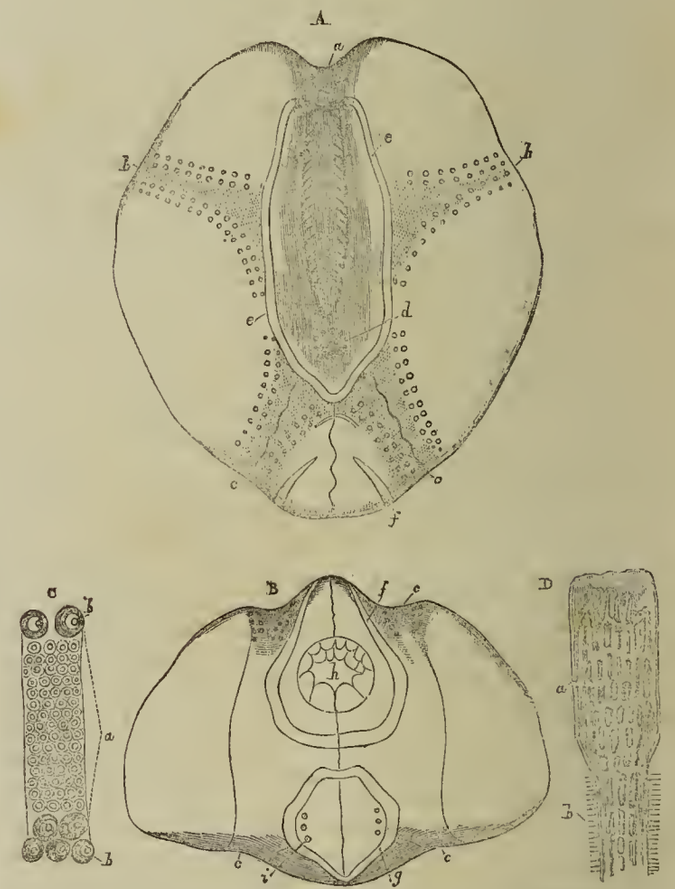
In the *Holothuridea* the racemose genital gland opens just behind the head, by a single aperture placed in the dorsal inter-ambulacrum; while in all other *Echinodermata*, with the exception, in all probability, of the *Cystidea*, the genital outlets are multiple. The *Crinoidea* differ from all other *Echinodermata* in that their reproductive organs are not situated in the interior of the body, but in the perisoma of the pinnules, where the ova or spermatozoa are developed in oval sacs.

(a) Irregular channels are described in the tissue of the columella, round which the alimentary canal of *Comatula* is coiled; and a cavity exists in the basal tubercle, whence canals pass into and traverse the axes of the brachial ossicles and of the cirri. Evidence as to the real nature of these canals appears to be wanting.

Before proceeding to the development of the *Echinodermata* there are two or three minor structural points to be referred to. The soft integument of the *Echinodermata* rarely becomes completely calcified, and is in the *Echinidea* very generally ciliated. In the *Spatangoida*, when the skeleton is cleaned, its surface is, in many cases (*Amphidotus*, *Brissus*, *Spatangus*), marked by one or more symmetrical bands of close-set, minute tubercles (Fig. 6). During life slender spines are attached to these tubercles, the calcareous skeleton of which is clothed with a thick coat of integument, which suddenly enlarges at the apex, so that the spine presents much the aspect of the sponge of a gun (Fig. 6 D); long and close-set cilia cover the shaft of the spine, while no such structures exist on the terminal enlargement. These bands of peculiarly modified spines are called *Semitæ* or "faseioles." *Semitæ* lie beneath and surround the anus in some genera, and are called "sub-anal" and "circum-anal" (*Brissus*); others surround the outer extremities of the petaloid ambulacra, and are termed "peripetalous," or, when they encircle the inner termination of their ambulacra, "intrapetalous" (*Amphidotus*).

The *Echinidea* and *Asteridea* further possess, scattered among their spines, very singular appendages, called *Pedicellariæ*. These are long slender stems, terminating in oval heads, divided into two or three jaw-like processes. The latter are strengthened by calcareous masses, which articulate with a similar mass, contained in the basal part of the head, and a calcareous rod is usually developed in the stem. During life, the pedicellariæ are in constant activity, protruding and retracting their heads, snapping with their jaws, and seizing and holding any object which may be presented to them with no little firmness and tenacity. The function of these curious bodies is as little known as that of the *Avicularia* of the *Polyzoa*, which they in many ways resemble. They can hardly be for the purpose of getting rid of parasites, as I have seen a number of *Caprellæ* perched upon the back of a living

Fig. 6.



Amphidotus cordatus.—A. Viewed from above. B. From behind. *a*, *bb*. Trivium, or anterior and anterolateral ambulacra. *cc*. Bivium, or posterolateral ambulacra. *d*. Madreporic tubercle, surrounded by the genital apertures. *e*. Intra-petalous *semita*. *f*. Circum-anal *semita*. *g*. Sub-anal *semita*. *h*. Anus. *i*. Intra-semital pores of bivial ambulacra. C. Semita magnified. *a*. Semital tubercles. *b*. Ordinary tubercles. D. Semita lspine. *a*. Terminal enlarged, non-ciliated portion. *b*. Ciliated stem.

Uraster (*Asteracanthion*), in which the pedicellariæ were in full activity.

The skeleton of the *Blastoidea*, *Ophiuridea*, and *Echinidea*, presents no pores beyond those intended for the exit of the feet; that of the *Asteridea*, on the other hand, exhibits numerous pores on its ant-ambulacral surface, which give exit to the minute cœca, which I have referred to in speaking of the respiratory organs, and these pores are occasionally, as in *Ophidiaster*, aggregated into distinct "pore-areæ."

The inter- and ant-ambulacral plates of some Crinoids, also, as we have seen, present peculiar pores; but it is in the Cystideans that this system of "anambulacral" pores attains its greatest development. The pores are here always combined together, usually in pairs, by canals which either traverse the substance of the plates or directly penetrate them. The pores which are thus united belong either to the same plate (*Sphæronites pomum* and *Leuchtenbergii*, *Protocrinites oviformis*) or to different plates, as in *Hemicosmites*, *Caryocrinus*, *Echinosphærites*, *Echinoencrinus*, etc. In the latter genus, and in *Pseudocrinites*, *Apiocystites*, and *Prunocystites*, the pores are few, and are arranged in definite rhomboidal figures, called "pectinated rhombs" by Professor E. Forbes.

The development of the *Echinodermata* takes place in two very distinct modes. In the one, the oval embryo is at first completely covered with cilia, but gradually loses them over the larger part of its surface, so that they become confined to a band which encircles the body (Fig. 7 A). At the same time a complete alimentary canal is developed, divided into three well-marked portions, a gullet, stomach, and intestine, and provided with a distinct wide mouth and an anus. A line drawn through the mouth and the anus traverses the ciliated circlet whose plane is thus, properly speaking, transverse to the axis of the body, although the circlet is so obliquely disposed, and at the same time bent upon itself, that it has more the appearance of a bilaterally symmetrical fringe(b).

Fig. 7.

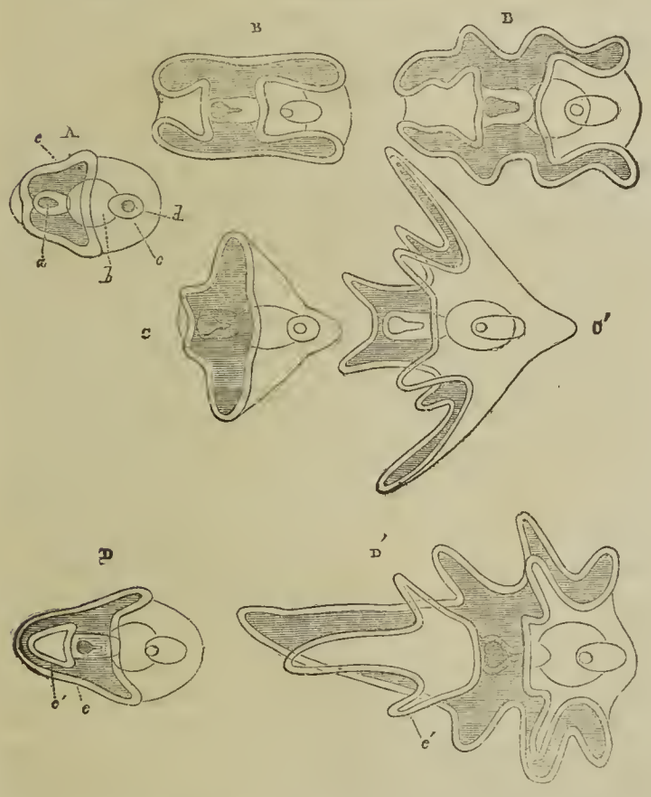
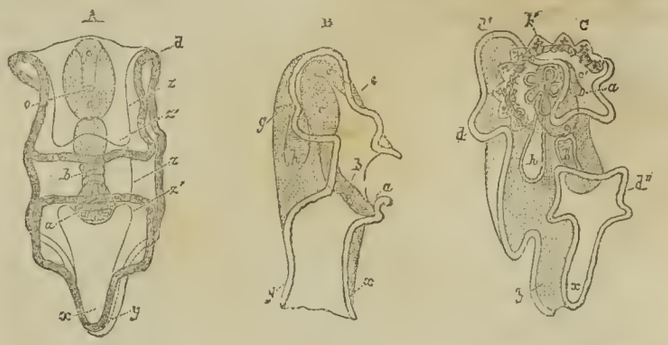


Diagram exhibiting the general plan of the development of the *Echinoderms* (after Müller).—A. Common form whence the Holothurid (B, B') and Ophiurid or Echinid (C, C') larvæ are derived. D, D'. Younger and more advanced stages of the Asterid (*Bipinnaria*) larvæ. *a'*. Mouth. *b*. Stomach. *c*. Intestine. *d*. Anus. *e*. Ciliated band. *e'*. Second or anterior ciliated circlet.

The great majority of the *Echinodermata* commence their existence as free-swimming larvæ of this kind, but a great difference exists in their further course, according as they belong to the *Asteridea*, the *Holothuridea* and the *Crinoidea*, on the one hand, or to the *Echinidea* and *Ophiuridea*, on the other.

(b) When I first made this almost self-evident remark, I by no means meant, as has been supposed, to suggest that the Echinoderm larvæ are other than bilaterally symmetrical.

Fig. 8.



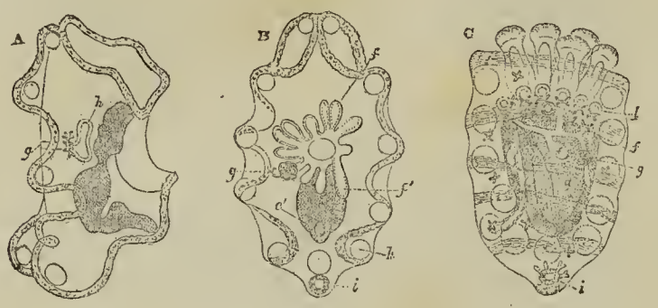
Development of an *Asterid* larva (after Müller).—A. Ventral. B. Lateral views of the larva. C. Commencing development of starfish. *a*. Mouth. *b*. Œsophagus. *c*. Stomach. *c'* Intestine. *o*. Anus. *x*. Anterior and *y*. principal ciliated band. *h*. Cœcal diverticulum, forming the rudiment of the ambulacral vascular system, and opening externally by the pore *g*. *k*. Perisoma of starfish.

The larvæ of the *Asteridea* (Fig. 8) develop a second ciliated circlet in front of the mouth, and therefore not traversed by the alimentary canal; and sometimes, as in the *Tornaria* of Müller, a third around the anal extremity. The anterior and principal ciliated circlets become produced anteriorly and elongated into tentaculiform processes, so that the larva acquires a very extraordinary and anomalous appearance. Kohen and Daniellsen, the discoverers of this form of larva, not being acquainted with its true nature, conferred upon it the name of *Bipinnaria asterigera*; the reason of the specific denomination will shortly become apparent. When the larva has attained a certain grade of development and a pore-like depression of the integument makes its appearance in its anterior and dorsal part, in fact, and this depression gradually becomes converted into a sac, ciliated internally, which, elongating, eventually reaches one side of the stomach. Here its extremity expands and gradually changes into a circular canal, from whence processes are given off. In fact, we have the rudiment of the ambulacral vascular system of the adult Echinoderm. In the meanwhile a mass of formative matter has accumulated in the same region, and gradually takes the shape of the body of a star-fish, the future mouth being indicated at a point corresponding with the centre of the circular water-vessel, and, therefore, far removed from the mouth of the larva (Fig. 8).

The blastema of the starfish body next gradually extends over the stomach, and, as it were, cuts it off from its own mouth and œsophagus, while it surrounds the rectum of the larva, which, for some time, projects as a tube from the apex of the starfish. At the same time the extremity of the tubular commencement of the ambulacral vascular system becomes included within and fixed to the perisoma of the starfish, in the position of the madreporic tubercle, into which, as the calcareous matter of the skeleton becomes deposited, it is gradually converted. The starfish now adheres by its own back or apical surface to the back of the now "asterigerous" larva, and is carried about by the latter as if it were a parasite; but eventually it becomes detached, and the larva, deprived of its alimentary organs, in all probability soon ceases to exist. The Echinoderm in the starfish, then, commences with the development of the ambulacral vascular system as an inward diverticulum of this intestine; this becoming clothed with the blastema supplied by the larva, becomes a sort of complex bud, which gradually assumes the form of a starfish. Like the bud whence the *Tænia* is developed upon its embryo, and, unlike the buds of *Hydrozoa*, *Actiniozoa*, and *Polyzoa*, it developes no separate alimentary canal, but adopts that of the larva, just as the imago of an insect adopts the alimentary canal of its larva. The whole process, in fact, occupies the most curiously intermediate position between ordinary metamorphosis and zooid development. If the body of the starfish had merely modelled itself out of that portion of the body of the larva which surrounds the alimentary canal, we should have had a simple act of metamorphosis accompanied by extensive ecdysis. If, on the other hand, the starfish had evolved its own alimentary canal, then the case would have been one of simple gemmation. As it is, the development of the starfish combines both processes.

The larva of the *Holothuridea* possesses only the principal ciliated circlet at first; but, as development proceeds, this circlet, instead of throwing out the long processes of the Bipinnaria, merely becomes deeply sinuated, and then certain parts of the sinuated portions of opposite sides become united together, while others are obliterated; so that the larva becomes surrounded by a number of transverse ciliated rings (Fig. 9 B, C).

Fig. 9.



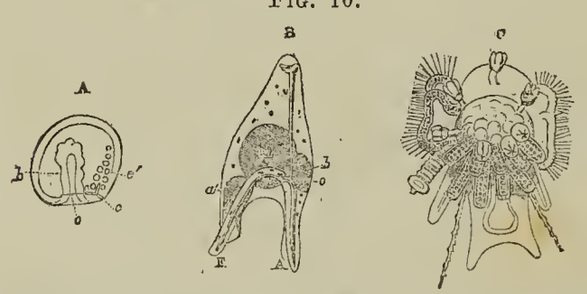
Development of a *Holothurid* (after Müller).—A. Early condition of larva B, C. Later stages.

The rudiment of the ambulacral vascular system makes its appearance in the same way as before, and in a corresponding position, and gives rise to the ambulacral canals; but no new mass of blastema accompanies these and takes the form of a distinct bud. On the contrary, they apply themselves to the walls of the body of the larva, which gradually becomes more and more vermiform. The development of the *Holothuria* is, therefore, much more like simple metamorphosis, and the addition of the new system of locomotive organs would be hardly more surprising than the addition of wings to the imago of an insect, were it not that, as in the starfish, the larval mouth disappears, and is replaced by a new one, developed in the centre of the circular ambulacral vessel. Furthermore, the ambulacral system does not remain connected with the dorsal pore, the canal of communication acquiring a calcareous deposit, and becoming cut off close to its attachment to the parietes. Hence, there is no madreporic tubercle on the body of the *Holothuria*, and the madreporic canal hangs freely into the perivisceral cavity.

Müller has described an asterid-larva which becomes vermiform, instead of assuming the figure of *Bipinnaria*. Of the development of the *Crinoidea* we know very little, beyond Busch's observation, that the larva of *Comatula* is provided with several transverse bands of cilia, almost like that of a *Holothuria*; and that the development of the Echinoderm commences while the larva is still free. We yet want to know the structure of the larva, its earliest form, and the changes which it subsequently undergoes. At a later period, it is well known, since the observations of Mr. V. Thompson, that the young Comatula is seated upon a long, jointed stem, so as to resemble a *Pentacrinus*; and that it becomes detached from this stem, in assuming its adult condition.

The larvæ of the *Echinidea* and *Ophiuridea* resemble those just described in their very earliest condition, but eventually become very different from them (Fig. 10). The difference is

Fig. 10.



Development of an *Echinid* larva (after Müller).—A. Earliest and B. later condition of larva. C. The Echinus imago developed within and nearly obliterating the larva.

produced in two ways—1. The dorsal region of the larval *Echinus* or *Ophiura* is produced into a sort of conical hump, while the ventral face becomes much excavated, and its edges prolonged into various slender, symmetrically arranged, processes. 2. While the larvæ of the *Asteridea*, *Holothuridea*, and *Crinoidea* never possess any calcareous skeleton, those of the *Echinidea* and *Ophiuridea* are always provided with such a skeleton, in the form of rods and bars connected into a sort of framework, whereby the body and processes of the larva are supported. This has nothing to do with the skeleton of the Echinoderm, coming into existence before the latter makes its appearance, and disappearing as it attains its full development.

The development of the Echinoderm in these larvæ takes place in the same way as in the others (Fig. 10); a depression making its appearance in the anterior dorsal region of the larva, gradually extending inwards as a ciliated canal, with a pore-like external aperture, and giving rise to the ambulacral vascular system. A mass of blastema in connexion with this lays the foundation for the perisoma of the *Echinus* or *Ophiura*, which gradually extends round the stomach, cutting off both œsophagus and intestine. A new oral aperture is developed in the centre of the circular ambulacral vessel, and in the *Echinidea* a new anus appears; but in the *Ophiuridea* no redevelopment of the anal aperture takes place. The extremity of the madreporic canal is included within the calcifying perisoma, and remains attached to it.

Very little of the larva is actually cast off in the *Echinidea* and *Ophiuridea*, the most remarkable fact of this kind being the breaking up and disappearance of the larval skeleton, which may here be well termed "provisional."

With regard to the other mode of development of the Echinoderms, to which I have adverted, there is but one known instance among the *Echinidea* and *Ophiuridea* of any departure from the type of development which has been described, in the *Ophiolepis ciliata*, which was discovered by Krohn to be viviparous, and whose development has been further examined by Schulze. It appears that the embryo of this Ophiurid never assumes the ciliated free-swimming condition, but passes through its early stage enclosed in a sac formed by the membrane of the ovary. As might be expected, the larval state is here very obscure, and, in fact, it might be doubted whether the animal passed through any, were it not that a rudimentary provisional skeleton is developed, and exists for a short time.

There is said to be a viviparous Holothurid, but not hingis known of the development of the larva. Among the *Asteridea*, however, several species belonging to the genera *Echinaster* and *Asteracanthion*, have been observed by Vars and others to present important aberrations from the ordinary course of development. The ciliated embyro never acquires the single or multiple well-marked bands of cilia, nor the alimentary canal of other Echinoderm larvæ, but puts forth one or more short processes from one extremity (comparable to those developed in the free asterid larva, *Brachiolaria*), by means of which it attaches itself either to the body of the parent or to sea-weeds. The free end next gradually takes the form of a starfish, so disposed that the processes of attachment eventually lie on its oral surface on one side of the mouth. As in all other Echinoderm larvæ, the axis of the Echinoderm is totally distinct from that of the larva in which it is developed; but of the internal changes, and more especially of the development of the ambulacral vascular system in these aberrant *Asteridea*, nothing is known.

Having thus laid before you at some length an account of the most important features in the organization of the *Echinodermata*, I have only, in conclusion, to point out what position creatures thus organized must occupy in the animal kingdom. As I have particularly explained, there is no such thing as a truly radiate symmetry in any Echinoderm whatsoever, the madreporic tubercle and canal being invariably asymmetrical. Furthermore, the larva invariably exhibits bilateral symmetry, and many adult Echinoderms are also, so far as their external form goes, bilaterally symmetrical. There is no more reason for regarding an Echinoderm as "Radiate" than there is for applying the same term to a *Tænia*. Under these circumstances it is not clear why, even if Cuvier's "*Radiata*," could, on other grounds, be retained, the *Echinodermata* should be arranged among them. We have seen, however, that Cuvier's *Radiata* cannot be retained as a natural group equivalent to *Vertebrata*, *Annulosa*, etc.; and, therefore, the question of the position of the *Echinodermata* would seem to resolve itself into this:—are the *Echinodermata* a sub-kingdom equivalent to *Cœlenterata*, *Mollusca*, and *Annulosa*, or do they fall under one of these sub-kingdoms? I confess I cannot imagine that any one will ever entertain the former alter-

native; and, if we admit the latter, then, by the method of exclusion, if there were no better reasons, the Echinoderms would fall among the *Annulosa*. Assuredly they have no affinities with either the *Mollusca* or the *Cœlenterata;* but there are strong positive reasons for assigning to the *Echinodermata* a position among the *Annulosa*, and in the Annuloid division of that great group. The vascular system of the Echinoderms are to be paralleled only among *Annuloida*. Larvæ comparable to those of the *Echinodermata* are to be met with only among the *Annelida* and the *Turbellaria*, while as I have elsewhere shown, a curious relation obtains between these larvæ and the adult forms of the *Rotifera*. Finally, the only series of developmental stages to be compared to that of the Echinoderms is presented by the *Tæniadæ*, where, as we have seen, a bilaterally symmetrical larva gives rise to a radially symmetrical imago, in which the radial symmetry only becomes subsequently disturbed by the development of the reproductive organs. The nervous system of the adult Echinoderm is not more aberrant from the typical Annulose nervous system than is that of the *Tænia*.

These are the grounds upon which I ventured, some years ago, to assign a place among the *Annuloida* to the *Echinodermata*, and I must confess that I am still unable to see that any other conclusion can be drawn from the known facts of their structure and development.

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

(Selected, by Authority of the Director-General, from Documents in the Office of the Army Medical Department.)

No. XXVIII.

OBSERVATIONS ON CASES OF PERICARDITIS,

ADMITTED INTO MALTA MILITARY HOSPITAL, DURING 1855-6.

By JEFFERY A. MARSTON, M.D.,
Staff Assistant-Surgeon.

(Concluded from page 615.)

Rheumatism is not by any means an unfrequent disease in the Mediterranean, among British soldiers, particularly recruits, in whom the rheumatic diathesis is frequently present; and we find, that, during the extreme heat of the summer and autumn, the men, after having their clothes completely soaked with perspiration, have on return to barracks frequently stripped, and exposed themselves in other respects to cold, and they were subsequently admitted into hospital with incipient pericarditis. Of two who thus accounted for their disease, one had arthritic inflammation of the left knee, occurring subsequently on the second day; yet the cases were very frequent in which pericarditis existed, accompanied by the type of symptoms which characterise acute rheumatism, save that no inflammation of the fibro-mucous membranes of joints occurred. In a climate like Malta, it is impossible to estimate perspiration, while this is the rule, but those patients, we imagined, had abnormal sweatings, decidedly of an acid character; the urine, too, although not quantitatively examined, had the usual characters presented during arthritic diseases; thus, it was scanty, high coloured, very acid, of high specific gravity, and frequently depositing a brick-dust sediment. It may be mentioned, that, at the same period, cases of acute rheumatism were occasionally admitted, from among the men stationed at camp, and in barracks. Hence, as no albumen was detected in the urine, nor had they purpura, or any marked diathesis likely to produce the affection, the question arises, as to whether it be possible to have a rheumatic condition of the blood, localizing its effects upon the heart and pericardium, irrespective of an attendant and more general affection of the fibro-serous membranes of the joints. It is now well ascertained, that acute rheumatism may be preceded and ushered in by a primary affection of the heart. Drs. Todd, Watson, and other Physicians have enumerated such cases, but we are not aware of any case in which this diseased condition of the system has developed itself upon the heart and pericardium only.

With regard to the period at which a friction-murmur earliest becomes apparent, it appears questionable whether the corresponding pathological condition be always one of effusion; for so frequently has it occurred that a friction-murmur, heard by more than one ear, has been quickly removed by cupping or leeching, and general treatment, that it could hardly admit of the possibility of the lymph having been absorbed, or sufficiently organized to have formed adhesions; rather, it seems to us, that a murmur of a soft rubbing character, heard during the systole and diastole of the heart, and occurring early in the disease, corresponds frequently to a stage in which the secretion of the sac is diminished, and the apposed surfaces of the membrane are merely dry, and enlarged from congestion. In one case only was paracentesis pericardii performed, and it appeared unsuccessful, chiefly from its very late application (necessitated from the man's admission from shipboard,) and the lesions which had been already produced. The cases were not all under the care of one Surgeon, nor were those of liquid effusion sufficiently numerous, or the amount sufficiently accurately determined, and the co-existing diseases too obvious, to warrant its more frequent performance.

Case.—Pericarditis, with Effusion, not an Effect of Rheumatism or Morbus Brightii—Paracentesis Pericardii—Death—Post-mortem—J. T., 57th Regiment, aged 26, admitted from transport on the evening of the 8th of July, 1855. Had been in the Crimea during the whole campaign; his health had always been excellent. About two months ago he suffered from diarrhœa, for which he was invalided to Scutari, and from thence embarked for England, nearly well, as a convalescent. Report stated that he was suffering from dyspepsia and fever. On admission he had almost constant vomiting, dyspnœa, anxious expression of face, much venous discoloration of the mucous membranes. He stated positively that he never had rheumatic fever in his life. The urine, which was scanty, contained no trace of albumen, and was of high specific gravity. He could not lie down in bed; always occupied a "leaning forward" posture. The pulse was 120, intermittent; mucous râles were heard over nearly the whole surface of the chest; the heart's sounds were very distant; impulse almost imperceptible; dulness existed over nearly three-fourths of the sternum, and to an extent of nearly five inches in diameter transversely; the dulness triangular-shaped. No bruit could be detected; dulness existed to an abnormal extent over the hepatic region, extending into the epigastric and left hypochondriac; spleen enlarged. The following morning, about three-fourths of a pint of sero-sanguinolent fluid was removed by a small trocar. The operation at first producing syncope, the opening was closed. He appeared much relieved, and slept pretty well. After a violent attack of orthopnœa he died at 3 a.m. on the 11th of July. Treatment pursued included stimulating diuretics, cupping, and free exhibition of stimulants.

Post-mortem examination revealed much fluid remaining in the sac of pericardium; the whole anterior surface and base of pericardial sac covered with a coarse, villous lymph, partly degenerated into pus; the left ventricle was hypertrophied, and appeared in a condition of fatty degeneration; valves healthy; steatomatous disease of the aorta, with a small ulceration between the two coronary arteries. The ulcer was prevented from perforating by a large deposit of lymph (organized) upon the external coat of the intrapericardial portion of the aorta. No pleurisy. Œdema of both lungs; liver very much enlarged laterally, apparently from "branny" deposit; kidneys quite healthy; intestines healthy, save some inflammatory redness about the pyloric end of the stomach; other organs healthy.

Pericarditis with Purulent Effusion; Acute Albuminuria; Death.—Private W. S., 23rd Regiment, admitted into hospital in May suffering from pleuritis. Had suffered some years before from rheumatic fever. Urine contained albumen, but no anasarca existed. This case not being treated by us, we know little more than that he died on the fourth day, was supposed to have pericarditis, and could not rest without lying with his head and shoulders upon a table.

Post-mortem.—An old pericardial adhesion at the base of heart; the sac enormously distended with at least a quart or more of thick, purulent fluid, the whole sac covered with degenerated, rough lymph; rhinal effusion of serum and lympn on right side. The valves and substance of heart appeared pretty healthy. The kidneys (particularly left) were much encysted and injected highly.

In this case paracentesis would have been possibly at least a great relief.

Cases of psricarditis occurting to men in hospital without any apparent cause.

1. Was a healthy-looking recruit, suffering from fistula in pesfnæo, the result of stricture. Urine contained no albumen; was sure that he had never had rheumatic fever. In this case, after inflammatory fever, he exhibited and complained of pain in the sternum, when a well-marked friction murmur was heard with each movement of the heart. After leeching, with blisterlng and mercury, the abnormal sounds became less diffused and finally ceased; but he exhibited all the symptoms of an adherent pericardium with a remarkably accelerated pulse, and was invalided to Chatham.

2. Corporal J. G., 23rd Regiment, had been in Hospital about seven days, suffering from orchitis; after great sleeplessness, and symptoms of dyspepsia, began to complain of pain in respiration, affecting the left side. Upon examination, it was found that he was suffering from pleuritis, and had a pretty considerable amount of effusion into the sac, for which he was blistered, etc. He subsequently had much sweating, following rigors, with a quick pulse, and complained of uneasiness in lying on left side. Upon physical examination of the heart, it was found that slight increase of dulness existed, with a murmur, which accompanied the systole and diastole of the heart, but was heard only from the fourth costal cartilage, upward towards the left axilla; not limited, therefore, to the surface of the heart, but it was not heard at the apex, or along the course of the aorta. After a short period the dulness had extended much, the increase being marked each day by caustic. It was of triangular shape; the impulse was slight, and the sounds were somewhat distant in character, and the murmur was not heard so distinctly. After blistering and mercury, the dulness gradually diminished, and the murmur, which had the character of an endocardial one, was again heard, the impulse at the same time becoming more forcible, and the sounds more distinct. He was subsequently sent to England, for change of air; the pulse remaining accelerated, and tendency to dyspnœa existed on exertion. No albumen in the urine, nor any rheumatic affection of the joints had ever existed in this case, but he had much acid perspiration, a loaded tongue, and uriue highly coloured and abnormally acid.

Case of idiopathic pericarditis, occurring on shipboard in the Mediterranean.—G. P., aged 20, Land Transport Corps; admitted December 12, 1855; had been ill two days, with pain in the chest, fever, and cough, for which he was blistered. No rheumatic affection had ever, or did then exist, nor was the urine at all albuminous, and of normal specific gravity. Upon examination, it was found that he had bronchitis of both lungs; and a plain friction murmur accompanying both sounds of the heart, attended also with marked tactile vibration; dulness existed from the third costal cartilage, left side, to the sixth, and the sternum between those points was dull. He complained of no pain or uneasiness; inability to continue long lying on the left side. The sounds continued for more than one week, and he was left in Hospital, apparently suffering from adherent pericardium.

Case of Pericarditis occurring after a prior adhesion of Pericardium with tuberculous pneumonia.—J. E., 2nd Battalion Royals, aged 23, admitted into hospital from England 20th July, 1855. A man of remarkable good conformation of frame, stated that about three days previously he had suffered from hæmoptysis. Pulse 103, jerky; expression, pale and anxious; no phthisis in family; slight dyspnœa, and respiration accelerated; skin hot and dry; almost continued cough, with more or less hæmoptysis, and profuse nocturnal sweating; slight diminution of resonance over the thoraeic parietes, but not marked; subcrepitant râles with pleural friction sound on both sides; no dulness or signs of tubercle to be detected about apices; much hectic in the evening; the heart's sounds appeared normal but weak and distant. During treatment a double friction sound developed itself over the cardiac region, particularly about apex, but no increase of dulness. The case was supposed to be tuberculous pneumonia, and the symptoms continued unmitigated, until he died, one month after admission.

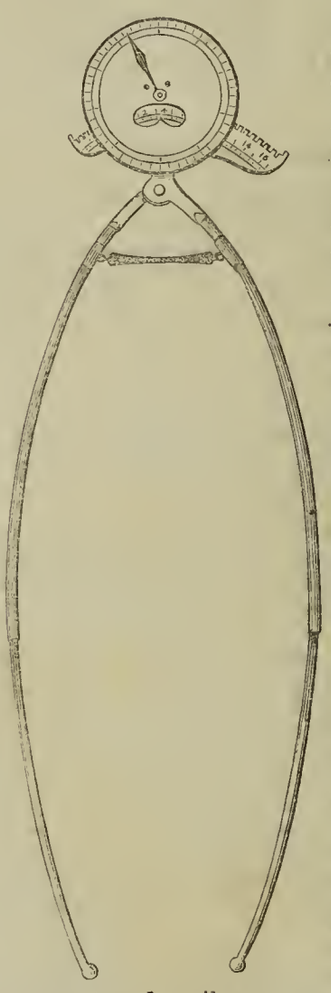
Post-mortem examination.—Old pericardiac adhesion, strongly organized over every part of the heart, save the anterior surface of the apex, where lymph of evidently recent formation was found. Heart itself healthy; no vascular disease, but much atrophied, weighing only 6 oz. Both lungs were infiltrated with transparent miliary tubercles; no cavities existed; recent adhesions of both pleuræ. Liver cirrhosed; other organs healthy.

ON A NEW INSTRUMENT FOR MEASURING THE EXPANSION OF THE CHEST IN RESPIRATION.

By G. NELSON EDWARDS, M.B. and L.M. Cantab.
Assistant-Physician to the City of London Hospital for Diseases of the Chest.

In the physical examination of the thorax it is frequently of importance to measure accurately the amount of expansion during respiration, as well of the whole chest as of corresponding parts on opposite sides. For this purpose several instruments have been devised, among which may be mentioned the chest measurer of Dr. Sibson and the stethometer of Dr. Quain. These are, however, difficult of application, and too complicated for general use; and it appears to me that the object may be more easily attained by certain modifications of the ordinary measuring calipers.

The instrument which I have had constructed is here figured. It differs from the ordinary caliber or caliper compasses in having the two legs continued beyond the joint in two flat pieces of metal, which move parallel to each other as the compass is opened or shut. One of these flat pieces is cut into the segment of a circle whose centre is that of the compass joint, its outer circular edge being cut at regular intervals into small equal teeth; these teeth work, as the instrument is opened or shut, on a small pinion wheel, whose axis is perpendicular to the flat piece of metal terminating the other leg, works in it, and turns a small index needle parallel to the plate in which the axis of the pinion works. By this arrangement, when the extremities of the feet of the calipers are kept applied to any two points whose distances from each other vary, this variation and the proportionate one described by the indented circular are is indicated by the motion of the index needle over the dial-plate. Such dimensions are chosen for the circular arc, its teeth, and those of the pinion, that a difference of two inches between the extremities of the feet of the calipers causes a complete revolution of the index needle. Variations of less than the twenty-fifth part of an inch are thus rendered apparent and easily measured. For greater variations than two inches a piece removed from the dial-plate with an index in its upper part exposes a graduated scale on the surface of the indented circular arc, which marks any greater deviation than that which produces a complete revolution of the index needle of the circular dial. A spring of vulcanized india rubber attached to each foot of the instrument at equal distances from the compass joint, assists in keeping the extremities of the feet in contact with the points whose variation in distance is to be measured,



The lower half of each leg of the calipers slides into the other half, so that, when it is found more convenient for use, the length of the feet may be reduced one half; when so shortened, the indications of the dial plate are diminished in value in the same proportion.

In using the instrument, the extremities having been applied to the two points between which it is desired to ascertain the variation, it is to be supported lightly by the hand, and, the point at which the index stands on the dial-plate having been accurately read off, the patient is to be directed to take a full

inspiration, and to hold his breath for a moment. The distance between the point at which the index now stands on the dial-plate and that observed on the former reading will give the amount of variation between the two points in full expansion. On expiration, by means of the india-rubber spring, the index will return to the point where it stood when first observed.

It would be superfluous for me to dilate upon the advantages of instruments for measuring the expansion of the chest in respiration, as this has been so well done by others; but I believe that in many cases of disease they may form an important aid to diagnosis, and if, by a long series of observations, we could ascertain the normal amount of expansion of the healthy chest at its several points, such instruments would be useful in ascertaining the value of lives proposed for insurance, as well as in scientific inquiries. These considerations must, however, be reserved for future investigation.

The instrument may be seen at Messrs. Elliott's of Charing-cross, also at Messrs. Fergusons, of Giltspur-street, to whom I am indebted for considerable assistance in overcoming the mechanical difficulties in its construction.

8, Finsbury-pavement, Dec. 16, 1856.

JERSEY HOSPITAL REPORTS.

By G. M. JONES, Esq.

EXTENSIVE DISEASE OF THE RIGHT ULNA—REMOVAL OF THE ENTIRE BONE—RECOVERY.

So short a time having elapsed since the patient of whose case I am about to give the history was operated on in the General Hospital, the speaking of it as a recovery may appear premature; but when it is found that the soft parts no longer require dressing, and are well consolidated; that the patient's health has improved so rapidly as to leave no doubt of its thorough restoration; that the fingers are moved not merely with considerable facility but with power also; that neither pain nor uneasiness is felt, where acute and wasting suffering were experienced before, there exists, I consider, tolerably just grounds for anticipating as perfect a cure as even the most sanguine could hope; still with these symptoms, favourable as they must be regarded, and sure precursors of a useful limb, I should have delayed writing out this case for some months, had I not been informed by indisputable authorities that there are none recorded in England in which the *entire* ulna has been removed; and I am thus led to make known this one in the hope that some junior members of the profession may pause before removing a limb because one of its bones is wholly affected, and rather hazard an operation which may be the means of rendering life sweeter, by enabling the patient to gain his livelihood by his own exertions, instead of being dependent for his bread on the charity of others.

I shall watch attentively the further progress of this case, and when treating hereafter on the diseases to which the osseous system is subject, shall not fail to mention its further history, as far as regards the capabilities of the patient to employ her arm.

History of the Case.—Emma Maskell, aged 25, married, by trade a bookbinder, although of slight and delicate appearance, had always enjoyed tolerable health up to December last, when during a week of frost she fell twice, and on each occasion injured her right fore-arm; these accidents were followed by much pain, and considerable inflammation of the parts; at the expiration of three weeks, an abscess formed near the elbow, which, after suppurating freely, healed, but was immediately succeeded by others over the middle part of the ulna. Her general health very quickly became affected, and although attended by a talented friend of mine, his judicious prescriptions wanted the dietetic assistance so essentially necessary to afford them any chance of success. Thus reduced by want as well as by disease, she became an inmate at the Hospital on the 1st of October, this year. The fore-arm at this time presented an immense amount of disease: there existed an unhealthy ulcerated surface about the size of a two-shilling piece immediately over the styloid process, some ten or twelve sinuses from this point to the upper third of the arm, considerable puffiness at the elbow, and boggy feeling at that part, much expansion in some places, depression in others, and a sloughing tendency throughout the soft textures in the vicinity of the different sinuses. Motion of the elbow, wrist, or fingers occasioned considerable pain, and a semi-bent position of the arm was the one chosen as affording the greatest amount of comfort.

A train of hectic symptoms were apparent; occasional diarrhœa, morning perspirations, tongue characteristic of great constitutional derangement, loss of appetite, sleepless or restless nights, with pulse varying from 108 to 120. The disease of the arm, and the effect it produced on the system generally, demanded prompt operative interference.

Operation.—This was performed in the following manner, on the fifth day after the patient's admission:—When under the influence of chloroform, her arm was more minutely examined than it had hitherto been; each of the sinuses led to bone. A small incision was first of all made through the puffy part at the elbow, in order to discover whether the disease had extended thus far; here too it was found that bone divested of its periosteum could be touched with the probe. This fact necessarily facilitated the future stages of the operation, as it became evident that the removal of the entire ulna was necessary; to effect this, an incision was commenced a little above the olecranon, and carried downwards rather beyond the styloid process; the integuments were then cautiously dissected on either side, the scalpel being kept at the time as close to the bone as possible; the ulna was now freed from its attachments at the wrist, then secured and held up with the left hand by the bull-dog forceps, till its remaining connexions were cut through. The triceps was next cut across, and the entire bone liberated. The hæmorrhage was by no means considerable, and no artery of any moment required ligature. Three sutures were applied, both to the upper and the lower part of the wound, water dressing inside the middle part, and also over its entire extent. The arm was then secured on a suitable splint.

Description of the Removed Bone.—Throughout its whole length, more or less, the bone was extensively diseased. Along the shaft several points presented the condition of necrosis; and at one point in particular was a considerable cavity containing a sequestrum of dead bone, almost loose. At the posterior part of the olecranon process was another cavity, and the bone around was bare, the lower extremity, near the styloid process, presented the condition of caries, and to the extent of more than an inch above, a considerable quantity of new bone was thrown out.

After Treatment.—Local.—For ten days after the operation, the suppuration was extraordinarily great, and much of the integumental structures sloughed away, so that the warm-water dressings had not unfrequently to be renewed two and three times a day; the pus throughout was generally of a laudable character. When healthy granulations were apparent, straps of Emplast. saponis comp., half-an-inch wide, and some distance apart, were applied in order to afford support, and at the same time to approximate as much as seemed desirable the lips of the wound, while the head of the radius was by every means possible coaxed, if I may so express myself, to adapt itself to the part formerly occupied by the ulna. At the expiration of seven weeks from the date of the operation, the parts had entirely healed.

Constitutional Treatment.—Immediately after the operation, stimulants in the shape of wine and malt-liquor, were allowed, and continued for several weeks, so that eight glasses of port wine, and one bottle of porter were taken in the twenty-four hours; animal food was allowed at every meal, also other diet of a nutritious nature. Quinine in large doses, comp. tincture of bark, and the syrup of iod. of iron were the medicines prescribed, not, as a matter of course at the same time, but alternately.

Present Appearance.—I shall merely add to the observations already made, that at this date, December 8, the appearance of the arm is such, that no one would imagine the ulna is wanting, the head of the radius has so beautifully adapted itself to the parts that even manipulation leads one almost to imagine the olecranon still exists; there is considerable movement of the wrist and of the elbow-joints, of the former particularly. The patient walks about without appliance of any description, and seldom or never carries her arm in a sling.

I cannot conclude the history of this case without stating that I had the opinion of my friend, Mr. Henry Smith, of London, prior to the operation, and the advantage of his assistance during its performance.

CASE OF A BOUGIE BROKEN IN THE URETHRA.

CALCULUS IN CONSEQUENCE — LITHOTOMY.

By GEORGE LOWDELL, Esq.
Surgeon to the Sussex County Hospital.

(Read before the Brighton Medical Society.)

In the month of January last, H. W., a man aged 54, presented himself among the out-patients of the Sussex County Hospital, stating that he had a large portion of a broken bougie in his urethra. At my usual visit I saw him, and passed a probe into the urethra, which touched clearly the foreign body about four inches down the canal.

The history he gave was, that having for some years been subject to stricture, he had been in the habit of occasionally passing an instrument to keep the canal pervious. This he always accomplished safely till the preceding November, (two months before his present application,) when, unfortunately, the instrument broke, leaving nearly six inches in the urethra and bladder. The foreign body produced no serious constitutional mischief; he made water freely, though, perhaps, more frequently than he ought to do, but without any pain; and he seemed to think he should care but little for it, except that his thoughts constantly reverted to the unhappy circumstance. I wished him to allow me to pass a fine pair of urethra forceps and endeavour to extract it; but he declared that he had made all kinds of efficient instruments, and was satisfied the remnant was not to be brought away by those means. He wished for some "forcing medicine;" and if I would not prescribe such for him, he would leave the Hospital. I tried to explain that no medicine would accomplish this purpose, and that probably stony deposit would ere long cover the bougie, so as not only to cause him the greatest inconvenience, but probably jeopardize his life. However, he would believe nothing of the sort, and left the Hospital in great anger.

I saw no more of him till the 16th of April, nearly three months since his last visit, and four and a-half months since he broke the bougie. He was now suffering extreme pain, and requested something might be done for him, and if he might have chloroform he would yield to any measure I proposed.

On the 22nd of April he was rendered insensible by chloroform, and by the aid of a long pair of urethra forceps I luckily obtained a good hold of the fractured end of the bougie, and gradually extracted a fragment about six inches in length, coated, especially where it had lain in the prostatic portion, with copious phosphatic deposit; but the portion that was in the bladder was perfectly free from such deposit; from which circumstance the inference was drawn that a calculous deposit had formed around it, but that it had separated when the bougie was withdrawn. This was soon proved to be the case; for though the patient was delighted at getting rid of his annoyance, he was disappointed that his pain did not abate; and, after passing two or three miserable nights, he allowed a sound to be passed into the bladder, when a calculus was immediately detected.

The poor fellow now saw too clearly the dilemma into which he had brought himself by neglecting the advice given to him when he first came to the Hospital. Pain and anxiety had completely changed his disposition, and, from being the most violent and obstinate of men, he had now become a most tractable patient, and requested that if an operation was necessary, he should be submitted to it as soon as might be thought right to do so. The supposed phosphatic nature of the calculus, soft and friable, encouraged the idea of lithotrity, but this was contra-indicated by the nature of the urine, which was alkaline, and loaded with mucus; and the bladder was so extremely irritable that it would scarcely contain two ounces of water injected into it—add to which, the urethra had become so sensitive, and the patient so nervous, that he could scarcely bear an instrument to be passed. Lithotomy was, therefore, determined on and performed on the 30th of May. A large, soft, chemically-constituted, "fusible" calculus was extracted without difficulty. The patient recovered perfectly.

There are many cases reported where instruments have been broken in the urethra; where they have remained for varying periods, producing more or less irritation; where different means have been successful in extracting them; or where, after endeavouring unsuccessfully to extract them, they have escaped spontaneously; but I have not been able to find one where the broken fragment remained partly in the urethra, partly in the bladder, so long as in this case—a period of nearly five months; and it is on this account that I think it ought more especially to be recorded; but it is also worthy of remark what little hindrance to the passage of the urine, and absolutely no sort of constitutional disturbance there was for the first two months. It was at this time that the patient ought to have allowed the foreign body to be removed, and probably he would at once have been relieved from all trouble. Mark! how during the next period, (the probable period of the calculous deposit,) his symptoms become more and more aggravated, till the self-willed and obstinate becomes the humble suppliant for relief, even praying, as an act of mercy, to have to undergo one of the most dangerous operations in Surgery. Happily for him he escaped with his life. Every one so situated may not be equally fortunate.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

HOSPITAL NOTES.

Tumour from the front of the Forearm.—A young female came under Mr. Walton's care at St. Mary's Hospital with a tumour in the centre of the forearm as large as a walnut. It was of strong hardness, apparently just beneath the skin, and so far moveable, as to justify the suspicion of being unconnected with the bone. Four or five years ago the growth was first observed, and it had gradually increased without pain till within a few months, when also the movements of the muscles being interfered with, she sought relief. Mr. Walton suspected the existence of enchondroma. An operation having been decided on, he made an incision over the tumour, dividing the skin and fascia. A distinct cellular sheath was at once recognised and opened. With the handle of the scalpel, the slight adhesions were readily overcome, and the entire mass, with its proper envelope, easily removed. Half only of it could be cut through with the knife, the rest requiring the saw for division. To the naked eye it had the resemblance of enchondroma. Microscopically examined, it did not exhibit any cartilage cells, nor was there a fibrous character, nor scarcely what could be called fibroid. The denser portion consisted of bony granules.

Long wearing of the Tracheal Tube after Tracheotomy.—A man, whose case we recorded about two years ago, in whom tracheotomy had been performed by Mr. Birkett in Guy's Hospital, under very urgent circumstances, accidentally again came under observation in the same Hospital the other day. He was discharged, still wearing the tracheal tube, and has continued ever since to do so. It was retained entirely at his own wish, and as a precautionary measure, as he could breathe very fairly without it. At the time of the operation he was pulseless, and, to all appearance, quite dead from dyspnœa; and such was his horror of a repetition of the circumstance, that he insisted on being allowed to keep the tube in. The original disease was inflammatory œdema of the glottis, supervening on chronic syphilitic disease; and on the morning of the occurrence he had been sufficiently well to be allowed to leave another Hospital of which he had been an inmate. There is, therefore, reason to believe that no very great amount of ulceration or cicatrisation existed. He is now in excellent health, and breathes sufficiently well through the larynx to allow of the tube being worn covered over by his cravat. When it is so covered he can speak with sufficient clearness to be well understood, and even to be heard at some distance. He states that he has had some colds on the chest recently, but not, he thinks, either more frequently or of greater severity than he used to be liable to before the trachea was opened. The case adds another to the list of several which we have recorded, in which tracheal tubes have been worn for long periods, not only without inconvenience, but with great comfort. In some cases, undoubtedly, the admission of cold air directly into the trachea is productive of liability to bronchitic attacks of more or less severity, but these seem quite exceptional. Very probably the adaptation of some folds of

wire gauze, on the principle of Jeffrey's respirator, might even in these cases obviate the inconvenience.

Empyema and Puncture of the Chest.—There is a case (a lad named Marsh) under Mr. Lloyd's care in St. Bartholomew's, well worthy of attention as an example of some of the events of empyema. He has been under our observation in different Hospitals for nearly three years. In the first instance he was a remarkable example of immunity from constitutional disturbance, while one pleural sac was full of pus. Admitted into St. Bartholomew's Hospital within a few weeks of the original pleurisy, (the symptoms of which had been very slight indeed), he was so well as to be able to go up and down stairs and assist the nurses in carrying things for the other patients. His left chest was perfectly dull, but a large majority of those who saw him expressed the most confident opinion that the fluid could not be other than serum, or he must show greater signs of ill-health. While in the Hospital he had scarlet fever, went well through it, and recovered well. He left the Hospital *in statu quo* as regards the chest, and returned home to assist his father, in work as a bricklayer! About six months later, however, a proof of the correctness of the diagnosis held from the first by Mr. Lloyd and some others, he suddenly began to expectorate pus freely. This continued, and afterwards the matter made its way through an intercostal space, and an external opening was made. This repeatedly healed up, and was repeatedly reopened, he remaining throughout, in spite of the profuse discharge, in fair health. He was under Dr. Peacock's care in the City Hospital for Chest Diseases for some months. A week or two ago, Mr. Lloyd made a free opening into the chest, and there seems a fair chance of the cavity being emptied, should he have strength to survive the process. A case illustrating the same point, as regards the extreme obscurity of early symptoms, is under Mr. Hutchinson's care as an out-patient at the Metropolitan Free Hospital. A little girl, aged 4, was attended throughout a feverish illness by a parish Medical Officer, who told her mother that she had remittent fever. Her mother was positive that throughout this she never complained of pain in the chest. Not regaining her strength, she was taken to a very excellent and experienced Physician, who heard the history, and seeing nothing to lead him to the chest did not make an examination of it. She had been under his care about a month, when a large, fluctuating swelling becoming apparent in front of the chest, she was sent to Mr. Hutchinson, to have "a burrowing abscess under the pectoral muscle opened." A few taps on the chest soon rectified this diagnosis, and showed that the pleural sac (the left) was distended with fluid, and the heart pushed over to the right of the sternum. Within a day or two, a second collection of matter externally showed itself, and both were opened. Since then (about two months) the lower puncture has continued to discharge, and the pleura is now fast emptying itself. The child's health is fair, and steadily improving. A case similar to this, which we mentioned eighteen months ago as under the care of Dr. Ramskill and Mr. Hutchinson, has since ended in complete recovery. The patient, a little boy of 10, is in excellent health, the fistula soundly closed, and the chest but little contracted.

Epithelial Cancer of the Nose; and its Diagnosis from Rodent Ulcer.—Long before the histological diagnosis of cancer was studied, it was a matter of remark among experienced Surgeons, that those forms of the disease affecting the nose, eyelids, and forehead were usually of very slow progress. This is now explained by a knowledge of the circumstance, that the form of ulceration to which, as quite incurable, the name of malignant might fairly be given, is, nevertheless, not a true cancer. We are speaking of a disease perfectly distinct from all the forms of lupus, and which none but the ignorant could confound with them. It is the disease described by Mr. Paget, and before him by Lebert, as the "Rodent Ulcer." The cavity formed by this disease resembles often very exactly that of an open scirrhus; but more frequently it is not nearly so deep. It has a sinuous border, thickened, elevated, and often of stone-like hardness. From the appearance of epithelial cancer it differs markedly in not having any warty growths whatever about its borders or surface. If cut away or destroyed ever so freely by caustics, the cicatrix never, so far as the writer's experience goes, remains healed more than a few months. Its spread is sure, but remarkably slow, and generally nearly painless. It never causes the glands to enlarge, nor does the patient become cachectic, or lose strength. Under the microscope its tissue shows only the forms of cell growth common in the edges of indurated ulcers, and nothing at all resembling those of any kind of cancer. It is decidedly a rare disease; and our own experience, which has included a very large sphere of Hospital observation, does not supply us with more than a dozen or eighteen cases. Speaking from general impressions, we should say, that on the parts named, *i.e.*, the inner angles of the eyelids and the nose, it is of about equal frequency with epithelial cancer. Its duration before it causes death may be twelve or fifteen years, and sometimes even more. In its spread it involves all parts, lays bare the bone, opens the nostril, etc., and in the cases in which we have known death to occur, the fatal event has been from hæmorrhage. We have seen but two cases in which the rodent ulcer has its seat on other parts than the face, and in both of those it affected the female genitals. We make these remarks *apropos* of an interesting example of true epithelial cancer of the nose now under Mr. Cock's care in Lazarus ward, Guy's Hospital. The patient, a Welshman in robust health, aged 56, noticed a spot on his nose in February last. He scratched it, and ulceration commenced, which spread so rapidly that Mr. Cock was compelled to excise the entire organ, although it was only about five months from the commencement. No glands had as yet enlarged noticeably, but the sore had been the seat of lancinating pain of some severity. In the rapidity of its spreading, the case offers a marked contrast to the examples of rodent ulcer of the same part.

Reduction of Hernia en masse.—Mr. Cock has now under care a case in which an inguinal hernia had been reduced *en masse* before the man's admission into the Hospital. Although reduction had apparently been effected, yet there was still a suspicious degree of fulness in the groin, and the symptoms of strangulated bowel persisted. On the second day of admission it was determined to operate, the case coming, in Mr. Cock's absence, under the care of Mr Poland. On opening the inguinal canal, the sac was easily found just above its mouth, and was drawn down and opened; it was however empty. The symptoms afterwards ceased entirely, and although no gut was found strangulated, yet there could be no doubt that the operation had been the means of effecting its liberation, so complete was the relief afforded.

Lead Poisoning.—A case was admitted into the clinical ward at Guy's last week under Dr. Addison's care which presented some features likely to have misled in diagnosis. It was that of a pale exsanguined man, who had suffered from head symptoms, with failing power in the limbs, irregular pains about the epigastrium, &c., but whose chief complaint was of palpitation of the heart. He was stated to have once had a fit, and at first sight the idea suggested was that there was cerebral mischief consequent on cardiac disease. In inspecting the tongue, however, Dr. Addison noticed a blue line on the gums, and on inquiry it appeared that the man had been working in red lead, and that he had suffered much from constipation. The arms, it now came out, had been more affected by the loss of power than the lower extremities. Dr. Addison ordered the iodide of potassium and expressed a confident opinion that most of the symptoms, if not all, would prove to have depended on the impregnation of the system with lead. He related some instructive cases which had occurred to him in private, illustrative of the necessity for being constantly alive to the possibility of symptoms of supposed spinal or cerebral disease being in reality of this nature. A conversation ensued in the clinical room, respecting the explanation of the earlier occurrence of paralysis from lead in the arms than in other parts. Dr. Addison said that this was in his experience a constant event, and occurred equally in cases in which poisoned water had been taken as in those in which, as in painters, the lead had been absorbed by the skin, and mostly by that of the hands and arms. He declined to give any opinion as to its explanation, but mentioned that Dr. Lloyd had broached a theory to the effect that it was from the power possessed by lead of inducing contraction of the arteries, those of the upper extremities being supposed to be proportionately smaller than those of other parts. Dr. Todd's ingenious suggestion is, that it results from the more constant use of the arms, and from the consequent increased rate of nutrition of their muscles.

Expected Operations.—Mr. Baker Brown will operate on a case of Vesico-vaginal fistula, by the method of Dr. Bozeman, at St. Mary's Hospital, on Wednesday next, at one o'clock.

Medical Times & Gazette.

SATURDAY, DECEMBER 27.

OUR OLD AND NEW VOLUMES.

The volume of the *Medical Times and Gazette* completed by the present number has been honoured by a larger number of subscribers than any former volume. We accept this as an encouragement to future exertion in order to deserve continued and increased support, and have taken means to improve every department of the Journal, in order to make it more and more worthy of the high and influential position it has acquired and maintained in Medical Literature.

The following Courses of Lectures will appear in the volumes for the new year:—

ON ANÆSTHESIA IN MIDWIFERY,
By J. Y. SIMPSON, M.D., F.R.S.E., Etc.
Professor of Midwifery in the University of Edinburgh.

A continuation of the Course of

CLINICAL LECTURES ON FEVER,
By WILLIAM STOKES, M.D., M.R.I.A.
Regius Professor of Physic in the University of Dublin.

The Lumleian Lectures, delivered at the College of Physicians,

ON THE DISEASES OF THE OVARIA AND UTERUS,
By ROBERT LEE, M.D., F.R.S.,
Physician Accoucheur to St. George's Hospital.

A Course of Clinical Lectures

ON THE DISEASES OF THE SKIN,
By WILLIAM JENNER, M.D., F.R.C.P.,
Physician to University College Hospital, and to the Hospital for Sick Children.

The Courses commenced by Professor Huxley, Mr. Toynbee, and Mr. Adams, will be continued and completed. Occasional practical Lectures on Surgery and Ophthalmic Surgery will also be contributed by Mr. Wharton Jones and Mr. Spencer Wells.

Among the Original Communications we have several series of unusual interest—Our Hospital Reports will become of increasing interest from the frequent introduction of short notes, bearing especially upon the cure of disease—the Notes and Queries are gradually becoming more valuable as the habit is being established of using this department of the Journal as a means of intercommunication by the Medical Public—Additional labour will be bestowed on the Editorial and Review Department—the Biographical Portraits commenced in the present volume will be continued—the Selections from Foreign Journals regularly kept up—the earliest and best Reports of Medical Societies may be depended on—while great care will be taken to ensure early and accurate mention of Medical News and Appointments. In a word, we may appeal to the past as an earnest of what our readers may expect for the future, assuring them that no expense or care shall be spared to make the coming volumes of the *Medical Times and Gazette* more deserving of success than any of their predecessors; and we trust that a steady and increasing prosperity will be found to be responded to by greater efforts to merit the kind, continued, and additional support of our friends and subscribers.

THE WEEK.

In reference to the letters of Dr. Speer and Dr. Fuller, which appeared in our numbers of the 13th and 20th of the present month, we have been requested by Dr. Stokes to state, that he never maintained that the combination of pulmonary tubercle with thoracic aneurism is of frequent occurrence; in fact, the very contrary may be inferred from Dr. Stokes's words, which are as follow:—

"As might be expected from thoracic aneurism being so often met with in men of strong constitutions, the class of associated or preceding diseases is but limited, and there are no local affections of organs distinct from the aorta which appear to have any frequent association with aneurism."—Diseases of the Heart and the Aorta, p. 578.

It is true, he adds, that "the morbid condition which most often accompanies aneurism is that of tubercle," but this is far from being a statement that such a complication is common, it merely conveys that aneurism coincides with tubercle more frequently than with other organic diseases of the lungs. The statement that "the combination is more frequent than has been supposed" is to be taken as the opinion of the author, and as differing from that of some pathologists who have held that the two diseases were incompatible. With regard to feebleness of respiration as a sign of aneurism, we may refer to Dr. Stokes's original papers in the first series of the *Dublin Journal of Medical Science*, Vol. V. 1834, and also to his work on Diseases of the Heart, page 556, to show that he long ago observed and described this sign as resulting from the pressure of a tumour on one of the bronchial tubes.

We stated last week that Government had determined to submit the whole subject of Metropolitan Sewage and Deodorization to a committee of scientific men. This determination has since been made known to the Chairman of the Metropolitan Board of Works by Sir Benjamin Hall, who has stated that the committee will consist of one military and two civil engineers. We trust these gentlemen will bear in mind that the public will be satisfied with nothing less than the complete purification of the Thames and the utilization of the Sewage; and we feel quite certain that they will be enabled to secure these great objects by no very great modification of some of the plans which will be laid before them.

A very deplorable case of alleged malpraxis in Midwifery has just been made the subject of a Coroner's inquest in the north of England. The deceased was a poor woman, the wife of a puddler at Stockton, and the person supposed to have mismanaged the case was a Mr. Wray, whose name does not appear in the "London and Provincial Medical Directory" or in the lists of any British College or Hall, but who states that he holds a diploma from a Medical College in New York. The facts of the case may be compressed into a very narrow compass. It is abundantly evident from the symptoms and the subsequent post-mortem examination, that the patient was suffering for some time before her labour from placenta prævia, which occasioned at intervals great losses of blood. At last the labour commenced and the hæmorrhage became profuse, and in a few hours the poor woman died from exhaustion. From Mr. Wray's statement now it appears that his treatment consisted in the administration of some powders consisting of opium, ipecacuanha, camphor, and bicarbonate of soda, and in addition to using the powders, *a hot brick was applied to the feet for the purpose of equalising the circulation.* By this treatment she was so much improved that Mr. Wray did not consider that she required further attendance. On the 5th of the present month Mr. Wray was again sent for, and found that she was in labour, *having sustained a great loss of blood,* but he did not think it necessary to remain with her,

as he considered that his services would not be required for eight hours. He, therefore, went home and prepared the same powders which had been so successful on the previous occasions, and, in addition, prescribed a mixture composed of equal parts of infusion of gentian and calumba, with a few drops of the elixir of vitriol. At five o'clock the next morning, Mr. Wray was again summoned to the patient, and found her in a dying state. "Under these critical circumstances," said Mr. Wray, "I considered if dry clothes were put on her, *and a hot brick applied to her feet*, she might be restored a little." Notwithstanding this treatment the patient died, and on a post-mortem examination, a full-grown female child was found in the uterus, with a natural presentation, and the placenta detached. It was the opinion of some of the medical witnesses that if the woman had been delivered, her life might probably have been saved, and in this opinion we entirely concur; but Mr. William Richardson, of Stockton, a friend of Mr. Wray's, and who is described as a Licentiate of the London Society of Apothecaries and Deputy Coroner of Stockton Ward, takes a different view. This gentleman has met in consultation several experienced practitioners in similar cases, and he and they thought it better *to leave the patients to the efforts of nature*, assisted by medicine, *and they have found such treatment successful.* Our own opinion most decidedly is, that to leave a patient suffering from hæmorrhage caused by placenta prævia to the efforts of nature, even although assisted by a hot brick, and by opium, and ipecacuanha, and camphor, and bicarbonate of soda, and infusion of quassia, is most unsafe practice, and that most patients would infallibly perish under such treatment. The Coroner in summing up the case to the jury, remarked that the law does not require that a person practising as an accoucheur should be legally qualified, neither does it blame the practitioner, unless gross ignorance or culpable neglect is exhibited. The jury did not consider leaving a woman flooding from placenta prævia to the efforts of nature, assisted by medicine, to be an instance of neglect or ignorance, and they, therefore, returned a verdict exonerating Mr. Wray from all blame. We hope, however, for the information of the Legislature, it will become extensively known that the present state of the law does not require an accoucheur to possess any scientific knowledge, and that any ignorant pretender may leave a case of placenta prævia, or puerperal convulsions, or arm presentation, or impaction of the fœtus, to the "efforts of nature," more especially if he assist her efforts by such active medicines as infusion of quassia, or carbonate of soda, and the like. If an ignorant or inexperienced person were to drive a railway train or navigate a steam-vessel, and a fatal accident were to ensue, the pretender would be inevitably tried, and most probably convicted of manslaughter; but any one may practise obstetric medicine without the necessity for any scientific education, and without the slightest apprehension of any consequences which may befall him if he happen to lose his patients.

A Report has been presented to the Vestry of St. Marylebone, and adopted by that body, on the subject of an improved method of cleaning the streets, instead of the present system of scavengering or sweeping, and occasional watering, and slopping or carting away the sweepings, in our great thoroughfares. The Report states that the experiments recently made in Oxford-street have been quite successful, and have given general satisfaction. The new system consists in washing the streets at all seasons of the year, and running off the dirty water into gully-holes so constructed that the solid matter is caught in a reservoir or pit, while the supernatant fluid escapes into the sewer by ascending to a dipstone or trap, which also prevents the ascent of gases from below. The advantages of this plan consist in its diminishing the exhalations from decomposed organic matters, and in promoting cleanliness and comfort in walking and riding by the avoidance of mud and dust. The Report contains a comparative estimate of the cost of the new and the old method, by which it appears that the adoption of the new plan would involve an expense of £50 beyond the present annual rate of payment; but it is considered that the great improvement in the appearance and in the salubrity of the streets will more than counterbalance the proposed outlay. Under the new system it would be necessary to wash the streets three or four times a week, but scavengering, slopping, and watering, would be superseded; for one washing in the morning has been found sufficient to keep the streets clean for a whole day, and a repetition of the process in the afternoon was injurious, rather than beneficial.

Not content with the discovery of Aluminium, and its application to useful purposes, Wöhler and Deville have just succeeded in obtaining Boron in a crystalline form. This substance resembles silicon in many respects, and may be looked upon as intermediate between carbon and silicon. The crystals are extremely brilliant; their refractive power is equalled only by the diamond; and it is supposed that our chemists will now be able to prepare a fictitious or boron diamond, which no one but a chemist can detect from the genuine or carbon diamond.

Of all those who have accomplished the long, difficult, and dangerous task of exploring the interior of Africa none have been so successful as a gentleman who went out under the double recommendation of being both a Physician and a Christian missionary — Dr. Livingston, whose return to England has been so heartily welcomed. It may interest our readers to know that this gentleman suffers from anchylosis of the elbow-joint, the result of fracture of the lower end of the humerus by a wounded lion, and that he is about to undergo the operation of forced rupture in the hope of regaining the use of the joint.

At the moment of going to press, we hear that Dr. Paris, the President of the Royal College of Physicians, died on the morning of rhe 24th inst. His last literary employment was preparing a new edition of his successful work, "Philosophy in Sport made Science in Earnest," the last sheets of which he revised only a few days before his death. Want of space obliges us to postpone any further notice of his life and works.

A Medico-Ethical question of some importance was brought before the Nottingham Medico-Chirurgical Society last week. It appears that a certain Professor Anderson, a corn-cutter, induced some of the Medical men of Nottingham to allow him to cut their corns, and then to give him testimonials as to his ability as an operator. These testimonials were, of course, extensively advertised in the local papers, and Mr. Eddison called the attention of the Medico-Chirurgical Society to the injurious tendency of such advertisements and testimonials. One gentleman acknowledged that he had overlooked the importance of the question, and made a most satisfactory and handsome apology; but other members denied the right of the Society to inquire into a question of Medical ethics. It does appear that the rules of the Society do not include such questions; and a Special Meeting has been called to alter the rules, and admit the discussion of questions of "Medical Policy and Medical Ethics." As to the propriety of this alteration we need not offer any opinion, but can most cordially concur in the effort made by Mr. Eddison and his friends to check the too-common practice of assisting advertising empirics by testimonials of authorized and educated Practitioners.

OUR GREAT ONES OF THE PAST.

MEN OF THE BRITISH SCHOOL.—No. III.

RICHARD WISEMAN.—*Continued from page* 629.

Wiseman having relieved himself in reference to the virtue of the Royal-touch, and therewith cleared his head of a considerable surface of cobwebs, enters thoughtfully into the pathology and treatment of King's-evil.

His definition of king's-evil is as follows:—"A tumour arising from a peculiar acidity of the serum of the blood, which, whensoever it lights upon glandule, muscle, or membrane, it coagulates and hardens; when it mixes with marrow, always dissolves it, and rotteth the bone."

The remote causes of the disease he believes to be referable to various heads, viz., "living in a thin and sharp, or thick and foggy air; diet of salt, sour, and slimy meats; want of exercise; natural complexion; hereditary transmission; the milk of a nurse infected with the disorder." External accidents are also, he infers, occasional causes of the evil, but when they excite the disease, "they suppose a predisposition of the body to it." "A straight stay, as some women and children wear them, hath too often the same effect."

The glands, muscles, viscera, membranes, tendons, or bones, are the parts most commonly affected with the disease. He does not remember to have seen the nerves or brain affected immediately with any tumour of this kind. Speaking of the breast as the seat of cancerous tumours, he adds the following curious remark:—"In a late private healing, I presented a young woman with one (tumour) in the right breast, and three near that, lying between the two breasts, as large as pheasant's eggs." What he means here by a private healing, and the presenting a young woman with four tumours, it is difficult to guess. Perhaps Mr. Serjeant Wiseman had private exhibitions of his cases and practice at his house, to which he invited Walter Needham, Prujean, Fraser, Jaques Wiseman, Edward Molin, Hollier, when he was in London, Denys, and others; and that at one of those gatherings he presented the girl to the meeting, and commented on her case.

In the cure of king's-evil, Wiseman held that three intentions were necessary—1. The "regiment" of diet, and the other "non-naturals." 2. Pharmacy, or internal prescriptions. 3. Applications of externals, either to discuss, suppurate, or extirpate the glands. His diet plan is not very profound. Fasting, he sometimes recommends; at other times he would order medicated broths and ass's milk. Air he considers a great help to cure. Hampstead is too piercing, Kensington is more gentle. He mentions one fact, "which he leaves to his reader's judgment, whether it ought to be attributed to the smoke, or the northern blasts from Highgate." A patient of his and of Dr. Thomas Cox, was wasted almost to skin and bone. They removed him to Knightsbridge, where after some weeks he having a little recruited his strength, and being eased of his cough; they removed him again (for the more conveniency of curing an ulcer with caries of the cranium) to a lodging near King's Gate, Holborn, which stood backwards, and airy enough, opening to the fields. In two nights he was so much worse that they expected he might die. They took him back to Knightsbridge, where he soon recovered.

Exercise of body ought, as Wiseman held, to be enjoyed in this disorder, "it being necessary to waste superfluities." Sleeping in the day is forbidden. Passions of the mind ought to be tolerated. The Pharmaceutical treatment of our author it is impossible to follow. He gives us prescriptions by the square foot. Mercurialization was with Wiseman an occasional means of cure in strumous cases. The external applications recommended are ointments of various kinds; opening the tumour if it contain pus, and extirpation if it be loose. That it was in some cases really a swelling containing fluid that was thus to be removed is shown by the statement, "that the tumour is to be opened warily, lest the matter inclosed in the cyst escape." In other cases, however, he seems to refer to simple tumours. He was acquainted with the operation of ligature through the base of steatomatous swellings; and he also recommends removal by caustic, in special cases.

Concerning scrofulous swellings of joints, he divides them into two varieties. "Both of them rise by congestion and increase gradually; yet differ in that the one ariseth externally upon the tendons, and between them and the skin, or between them and the bone; the other internally within the bone itself." If, in any case of this latter kind, the bone were carious, it was his practice to open down upon it, let out the matter, and allow the bone to exfoliate, or to remove loose parts that might come in sight. Then he placed and kept the limb in a proper position, that the joint above it might not contract. His reason for this practice is thus ably given:—"Be assured, one rotten bone cannot cast off another; they may well rot in pieces; but until the hypersarcosis be removed, and the bones laid bare, you can expect nothing but aposthemations one after another, and your patient at length will die of hectic." In one case he met Dr. Glisson, with Drs. Cox, Staynes, and Needham, in consultation. Sometime about 1673, being called into the country, he returned home grievously diseased; but a bad case being in hand, he was carried from his room to the consultation, at which Dr. Lowre was present. The case was one of tetanus following an operation. A few hours later he was called again, but had not strength enough in his hands to make use of the knife. "Dr. Charleton and Mr. Hollyer were at a public dissection in our theatre, where Dr. Walter Needham was reader; only Dr. Lowre and Jaques Wiseman were to be found." These gentlemen, therefore, operated by removing a portion of bone after eschar. This patient died convulsive on the third day—a result due to the constitution of the patient rather than to the operation, *per se*, says our author; who seems ignorant, however, of traumatic tetanus as a distinct disease. In illustration of the great evils that may arise from little ones, he remarks on the "monument in Westminster of the young lady holding up her finger prickt with a needle, of which she died." Who was this young lady thus immortalized in stone? Any relation to that famous lady who died from the same cause, and whom the distinguished Mrs. Jarley immortalized in wax? The question is left open to antiquarians.

It is impossible to give an idea even of the many interesting cases and observations with which this part of Wiseman's work abounds. The interested reader will refer to the work. He will there find our author fierce in his righteous denunciations against bone-setters; he will hear of one of this class named Thurland, who played Wiseman a very "scurvy trick," though permitted into the houses of "Persons of Honour;" he will find our Chirurgeon thrusting pointed cauteries down to joints and burning out carious bones; and will read here of the *Public* Healing Exhibitions, possibly hospitals or dispensaries. He will also find that the Sergeant lived at one time near Covent Garden, that a Mr. Stockdale made instruments for him, that he got sometimes attacked on the subject of his skill, that that once he obtained a letter from a gentleman whose son had been under his care, whereby to save his reputation; and that one Mr. William Clarke, who had formerly been his servant, but afterwards settled as a Chirurgeon at Bridgenorth, in Shropshire, wrote a letter bearing date November 26th, 1675, to his "honoured master" about a case in which both were concerned.

Operations on the Tonsils.

We must pass over two curious chapters on Ophthalmia and Egilops, to dwell a moment on the chapter on the Tonsils.

Here we are informed on the subject of extirpation of the tonsils, and the remark is made that Mr. Edward Molin was the first Chirurgeon who performed this operation. He did it with the actual cautery "through a canula well contrived for the purpose." The operation was not one however of clear extirpation. The pointed cautery was passed through the body of the tonsil, which afterwards crumpled up. Wiseman improved on this operation by affixing a ligature round the neck of the tonsil, and then snipping it off wholesale with blunt pointed scissors. He also practised snipping off the uvula in cases where that organ was elongated.

On Wounds.

Wiseman's definition of a wound is at once simple, precise, and brief. "A wound is a solution of continuity in any part of the body, suddenly made by anything that cuts or tears, with a division of the skin." Not less simple and truthful was his plan of *treating* wounds. We give his own words on this point, that no historical errors or doubts may arise.

"The wound being a solution of continuity, doth require to be made one again, *Unity being the perfection of whatsoever hath a being*. To effect this is the work of nature and of art; both must mutually joyn thier helping hands, and unless both the vital faculties and nourishment of the part do assist the art of the Chirurgeon it will be lost labour; here must be a joynt meeting and agreement all in one." For simple wounds the Chirurgeon is to afford his assistance in five manners of ways.

1. The first is, in careful and diligent taking away all such extraneous bodies as by their agglutination may hinder the true agglutination of the disjoyned parts, whether they be concrete blood, hair, sand, dust, pieces of bones, cartilages, or pieces of weapons, rags, etc.
2. The second is, in bringing the lips of the wound even together, which were separated.
3. The third is, in retaining the lips so brought together that they may, by consolidation, be restored to their former figure.
4. The fourth is in conserving the temperament and natural heat of the part, in order to unition.
5. The fifth is, in preventing ill accidents, and correcting such as have already seized the part.

The second of these *intentions* is to be performed by bringing the lips of the wound exactly together. "This intention is delivered in a few words, *but they are to be observed as a law*. Nature hath nothing to do here in bringing the lips together, that is the sole work of the Chirurgeon; who must not lay a pledgit, or crowd a dossil of lint into the wound: *no;* that is the way to keep the wound open, and make it painful, whereby defluxions are stirred up, the temperament of the part weakened, and the cure prolonged."

Wiseman is further very exact respecting the way in which wounds are to be brought together. The parts must be made to answer one another, that Nature may do her work more speedily and surely.

For the holding together of wounds he recounts three plans, rowling, stitching, and "fibulas or clasps." He explains clearly enough why the sympathetic powder gained so much credit, *i.e.*, nature alone effected the cure. He enumerates several kinds of stitches; the separate stitch, the glover's stitch, the stitch "performed with pins and needles, as in hare-lips," and the dry stitch, *i.e.*, the laying of two pieces of some adhesive plaster on each side the wound, and when they adhere, the passing the stitch through the one and the other of these, instead of the skin. In the cure of wounds the habits of the patient must be carefully considered. He considered it bad practice, in cases where the wounded were free livers, to put such at once on low diet. He often saw in some of the Dunkirkers at sea, who drank extraordinarily, and were full of drink, at the time of their sea-fights, that he could scarce ever cure any of them without allowing them wine.

In the wars Wiseman had constant experience in the cure of compound wounds, especially of those inflicted by the sword. These wounds were most produced when the horsemen fell in amongst the infantry, in which case the latter had the worst of it by considerable odds. In the treatment of such wounds he was once, he says, assisted by Mr. Sanderson, "now one of the Chirurgeons of St. Bartholomew's Hospital." At Stirling, in Scotland, he was helped by Mr. John Chase, Apothecary to his Majesty. In compound wounds he still recommends the attempt by the first intention.

Wounds of Arteries.

If the artery is wounded by a simple wound, the lips of the wound may be brought together by a glover's stitch, and firmly bandaged afterwards. If this does not succeed, the artery is to be "taken up and tied." If tying cannot be accomplished, escharotics or the actual cautery are to be used.

A Seafaring Anecdote.

In speaking of wounds of the face, Wiseman introduces an occasional anecdote, throwing a little light on his own career. "When," says he, "I served among the Dunkirkers, when snick and snee was, as it were, a fashion, I had much of this sort of work" (face mending), "and, for your diversion, shall set you down one instance in that kind:—While our squadron laid at anchor in the Groin, there came in some Hollanders, under the notion of Hamburgers, with their ships new trimmed up for the King of Spain's service. A boatswain of one of these ships happened to be in company ashore with some of our men; while drinking together, the Hollander began to prate of religion, upbraiding one of our men for wearing a cross, and after a while he became quarrelsome, and swore, *sacrament*, he would not wear a cross; no, the devil take him, repeating it often. One of our men beat him down, and fell with him; then, kneeling upon his breast, and holding his head down, he drew out a knife, and cut him from the ear towards the mouth, then from the os zygoma to the neather jaw. 'Now,' said he, 'you shall wear a cross, that the devil do not carry you away.'" Wiseman being called, treated the wound by suture, and produced a cure very satisfactory to the patient, who was proud of his scar.

He who in these days is interested in military exploits must look at Wiseman's writings, where they will discover many useful hints and curious anecdotes, some of historical value. He will be introduced to Prince Rupert's chief Chirurgeon, one Mr. Shocque, and to the General Chirurgeon of the Scottish army, Mr. Pennicuke. He will find Wiseman in the character of fighting Chirurgeon, running away from Truro with the rest; and, in order to release himself from a wounded trooper, showing the trooper a portion of his (the trooper's) own brains, as a kind of proof that a Chirurgeon could do no good if he stayed, the sight whereof so "calmed" the patient's "passion," that the Chirurgeon had liberty to fly from the enemy. He will follow the Sergeant further, to the fights at Musselburgh, Taunton siege, and Weymouth; at which latter fight he will discover him, while running away, halting a breath to assist up an Irishman who had been operated on a day or so before,—the Irishman, once on his legs, in his turn outruns the Chirurgeon.

Again, the reader anxious only after professional knowledge will find among other things that Wiseman in amputation of limbs used the circular incision, but cut at once to the bone; that he stopped bleeding vessels by the cautery or ligature; that he was conservative in his operating views, and refused to cut off a whole hand, if even a finger could be saved; that he knew how to reduce shoulder dislocations, by putting the heel in the armpit; that he prescribed mercury and sarsaparilla in syphilis, and did not believe in the cure of this disease without mercury.

Lastly, it will be discovered, if this analysis be followed out more minutely, that our Sergeant-Chirurgeon thought the discharge of gonorrhœa to be seminal in character, that he called the obstructions met with in the urethra after gonorrhœa "caruncles," and a very firm stricture a caruncle with a carnosity; that in treating these obstructions he used dilatation, or passed a canula down to the caruncle, and, while holding that there steadily, conveyed a grain of caustic down through the canula to the caruncle, and pressed the caustic to it; and, lastly, that if there were suppression of urine with carnosity, he cut down to the carnosity and divided it. On this last point it may be well, however, to give a full and final quotation:—

"If there be a carnosity with caruncles your way is to dilate and supple it by emollients as above said. If a suppression of urine happen, a large clyster suddenly injected up hath frequently forced the urine out of the bladder; but if that fail, a catheter must help you, or an incision *in perinæo* through the carnosity."

Our present task is ended. Another Great One of the Past has flitted before us, and a fourth is in prospect. We have in this task been the observers of an important era in Surgery, and of the acts and deeds of one of its most important

men, and one of the truest representatives of his class. Full of sound practical knowledge, ingenious in resource, unwearying in industry, a rover about the world far and wide in various daring scenes and conflicts, but with his eyes always open, and his heart in the right place, the friend and ally of the most worthy Æsculapians of his day—such was the Sergeant-Chirurgeon of Charles the Second. How far this Chirurgeon anticipated many of the modern inventions of Surgery, let others decide. Meantime, in the name of honour, let his originality claim our esteem, and his one superstition our forgiveness.

"The good deeds that men do live after them;
The bad is oft interred with their bones."

So let it be with Wiseman.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 164.—Why does Position influence the Pulse?

In the *Medical Times and Gazette*, January 7, 1854, page 5, in a "Discourse on the Life and Works of the late Dr. Graves," by Dr. Stokes, the observations of Dr. Graves on "The influence of position on the pulse" are mentioned in an enumeration of "his original views and additions to medicine." Dr. Graves says in a Lecture on the subject, "I cannot advance even a plausible conjecture concerning the reason why a change of position should so affect the frequency of the pulse." That muscular action is the true cause of the latter has, I think, been satisfactorily proved by Dr. Guy and others. See Müller's "Physiology," translated by Dr. Baly, 1839; Carpenter's "Principles of Human Physiology," etc. etc. The difference in the pulse of an individual when lying with all the muscles relaxed as much as possible, and when in the same position, but with one arm extended and unsupported, may be adduced in proof. When questionable doctrines are thus revived it appears to me legitimate to expose them. I am, etc.

London, Dec. 8, 1856. Inquisitor.

No. 165.—Ague in London.

You would much oblige me, if you or any one of your correspondents, could inform me through the medium of your "Notes and Queries," whether the cases of ague, or allied affections, have become increased in number in the neighbourhood of St. James's-park, since the waters of the park have been let off. I am, etc. H. W.

49, Finsbury-square, December 22, 1856.

No. 166.—Dr. James Sims.

James Sims, M.D., a native of the County Down, Ireland, practised in London about the end of the last century, and wrote "Observations on Epidemic Disorders, with Remarks on Nervous and Malignant Fevers." London: 1773. He is mentioned by Wadd in his "Nugæ Chirurgicæ," and also in the "Nugæ Canoræ." Can any of your readers refer me to a biography of this person, or afford any information respecting him?

ANSWERS.

No. 161.—The Gold-Headed Cane.

The following may interest some of your readers:—In Dr. John Gilbourne's "Medical Review, a poem; being a Panegyric on the Faculty of Dublin," published in 1775, this passage, descriptive of a procession of doctors to the Temple of Fame, occurs:—

"By two and two with faces gravely glad,
In scarlet gowns, and hoods of fur gay-clad;
Grey wigs in waving curls the sages wear;
Black-tasseled caps, not high, but flat and square.
A limb of Daphne, with perfuming wand,
Supports and graces the salubrious band."

To the last line but one of the foregoing doggrel is appended the following foot-note:—

"A branch of laurel. A smelling-bottle in the head of a cane, such as the old physicians used."

The poem itself, as you may perceive from the specimen, is wretched stuff; but, as it specifies by name, and gives some sketch of every Medical man in Dublin at that time, it is a curious piece of biography. The work is now very rare. I only know of three copies extant. Curiosity.

No. 161.

The Gold-Headed Cane in the College of Physicians was presented to that learned body by Mrs. Baillie. It had been carried successively by Drs. Radcliffe, Mead, Askew, Pitcairn, and her own husband. The arms of these Physicians are engraved on the head of the cane. I am, &c. H.

College of Physicians, Dec. 20, 1856.

REVIEWS.

Essays on Infant Therapeutics, with Observations on Ergot, &c. By John Beck, M.D., Professor of Materia Medica in the College of Physicians and Surgeons of the University of New York. Second Edition. Pp. 168. New York. 1855.

The principal part of this work is devoted to the treatment of children's diseases; but it likewise contains an Essay on the use of Ergot; a short account of the use of Mercury in Inflammatory Complaints; and a Catalogue of the Deaths from Poisoning in the city and county of New York in the years 1841, '42, and '43. The present edition was revised and enlarged during the last months of the life of the author, and it is introduced to the Profession by a surviving relative. Some very important subjects are discussed in relation to infant therapeutics; for instance, the effects of opium, of emetics, of mercury, of blisters, and of blood-letting, on the young patient, and some very valuable cautions are given in respect to each of these remedies, which are so potent for good or for evil on the infant constitution. The advice given on the subject of the use of ergot is also very judicious; and it is shown as the result of much experience both in Europe and America, that this drug is often productive of serious mischief to the child, and that it should be used only with great caution, and in very urgent cases.

Diseases of the Stomach and Duodenum. By Charles Evans Reeves, B.A., M.D. Pp. 354. London: 1856.

The Stomach and its "difficulties" has been a fertile topic for the exercise of the pens of the members of the Medical Profession, and he who overlooks or ill-treats this important organ will certainly suffer for his negligence and unskilfulness. There are, however, two classes of works which are presented by the Profession to the reading world: one, in which the authors treat the subject in a popular style, suited to every capacity, embellished, perhaps, by humorous anecdotes, and always accompanied by a catalogue of successful cases calculated to exhibit the peculiar skill of the writer in treating the maladies described; and another class, in which the Professional public is alone appealed to, and the diseases of the stomach are treated only upon anatomical, physiological, and pathological principles, cases being recorded to illustrate the results, whether favourable or unfavourable, of medical treatment. To the latter class the work before us unquestionably belongs, as it is a laborious compendium of the existing knowledge of the diseases of the stomach—or rather stomachs—for the duodenum has not inaptly been called the second stomach,—derived from the perusal of all available books, and from the personal experience of the author, in the French and English Hospitals, and in parochial, dispensary, and private practice. That Dr. Reeves does not intend, however, to make a speciality of the diseases of the stomach and duodenum, is evinced by the announcement that he intends to follow up his present volume by two others, upon the "Diseases of the Brain and Spinal Cord."

The plan pursued by Dr. Reeves is to treat consecutively of the diseases of the Stomach and Duodenum, whether inflammatory, functional, or organic; detailing in succession the predisposing and exciting causes, the symptoms, the terminations, the diagnosis, and the treatment, and illustrating the remarks by a copious array of cases drawn from numerous sources. The work is thus thoroughly practical, and the conclusions formed are only the summary of observations previously made and recorded. Under the head of Diagnosis, we may remark that there are some carefully drawn aphorisms,

arranged in parallel columns, distinguishing such affections as cancer and chronic gastritis, chronic gastritis and chronic duodenitis, acute gastritis and acute duodenitis, which comparisons, although in some cases they appear to us to err on the side of over-refinement, are calculated to display to advantage the author's analytical powers. On many points the evidence of statistics is adduced to prove the peculiar liability of age, sex, occupation, climate, and season, to certain diseases, and the tables given must have involved much laborious investigation. The following diagnosis between acute gastritis and acute duodenitis will give a favourable specimen of Dr. Reeves's style:—

"Acute Gastritis.	Acute Duodenitis.
1. Pain situated in the epigastrium. It is never very intense, unless it has been excited by some powerful irritant.	1. Pain situated along the margins of the right false ribs, and extending down towards the right of the umbilicus. It is very intense when it has been excited by the impaction of a gall-stone.
2. Matters vomited or the evacuations from the bowels, rarely very bilious. The vomited matters never assume a fæcal odour.	2. Matters vomited and the evacuations from the bowels, unless complete obstruction to the entrance of bile into the duodenum exists, loaded with bile. The matters vomited invariably assume a fæcal odour and colour when the inflammation is situated low down in the duodenum with obstruction.
3. Jaundice never occurs, although the skin assumes sometimes a faint bilious tinge.	3. Jaundice is of constant occurrence, though often not very strongly pronounced, unless the obstruction to the entrance of the bile into the duodenum is great."

While thus generally commending the design and execution of Dr. Reeves's book, we may observe, that in some parts it bears the marks of hasty composition, and the Gallicisms are occasionally so numerous as to suggest the idea that some of the passages are literal translations from the French. The illustrative cases are also unnecessarily numerous, for although they prove the author's power of research, they do not add to the value of the work, and many of them might be advantageously omitted. A few striking cases are, no doubt, most useful in presenting a living picture, as it were, of the diseases described; but here we have a multitude of cases ransacked from British and foreign literature, for the mere purpose, as it appears, of adding to the size of the volume.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE TREATMENT OF ASPHYXIA.

By M. FAURE.

M. Faure terminates a long series of papers by the following conclusions: 1. Asphyxia, whatever may be its cause or its form, is identical. If the symptoms dependent upon the manner in which it is produced, or upon the secondary lesions it has given rise to, vary, its own characters, viz., those which are due to the general alterations consecutive to the changes in the blood produced by a defective hæmatosis, are absolutely invariable. 2. It is the most exact representation of the condition termed hyposthesia. From the beginning to the end it is but a gradual enfeeblement of the vital powers. The intellectual faculties first succumb, then the locomotive powers, next the organic functions, and, finally, the proper properties of the tissues. 3. Of all the faculties, that which is easiest followed during the different phases of its disappearance is the sensibility. Abolished at first at the extremities of the limbs, it goes on gradually diminishing, until it exists only in a very limited portion of the body, the pupil. Not only does it thus progressively disappear from the surface of the body, but there is also observed a determinate gradation in the decrease of the different degrees of its power. At first mechanical stimuli are found to have lost their power over it, then cold, and, lastly, the actual cautery. When this last is applied to the upper part of the chest without producing any effect, death has certainly taken place. 4. When the asphyxiated person is restored to life, we find him recovering his lost properties, functions, and faculties one by one, in the inverse order to that in which he had lost them. Locomotive power is never re-established till a late period, and the intellectual and moral faculties later still. Sensibility is especially recovered at the point it was last limited to, and then gradually extends over a larger surface. 5. The fundamental fact in asphyxia is the abolition of general excitability, and the reproduction of this is the sign of the return of life. 6. In our treatment we must exclude everything that can diminish the powers of the organism. We must not mistake for the effects of organic changes the perturbations that may be observed, as a tendency to coma, convulsions, etc. These being merely functional, dependent upon the condition of asphyxia, disappear with it without the aid of any special treatment. Especially must bleeding be abstained from, except in regard to true inflammatory accidents that may be ulteriorly developed. 7. The only suitable treatment consists in the employment of stimuli. These lose or gain in power according to their mode of application. Applied from below upwards, that is, in the direction of the paralysis, however powerful they may be, they will prove of no avail; while even very simple ones employed in a contrary direction are of great efficacy. A drowned person had resisted for eight hours the most energetic stimuli applied to all parts of his body, when Cagé restored life by gently tickling the fauces with a feather. 8. Slight stimuli may suffice in the most serious cases, when the asphyxia has not lasted long; but this is not so when the state of apparent death has long continued, for then the asphyxia has produced disorders which, added to the primary cause, render the restoration of life more difficult. In such cases we must act with perseverance and energy, in order not only to obtain the first signs of returning life, but also to resist the tendency to relapse into a state of somnolence, and to definitively expire as soon as the attempts at revival are discontinued. 9. The first resistance should be overcome by means of cold affusions or cauterizations, and sometimes by the simultaneous employment of these. The affusions should be extended over the entire surface, being especially directed towards the head, and projected with force, at short intervals. For cauterization, the nearest object capable of bearing a great heat will suffice, as a piece of iron, or charcoal, a heated pipe, etc. In order to judge of the condition of the patient, we may first try the application to the lower extremities; but we must never expect to reanimate him, except by applications made from above downwards, commencing at the point where sensibility still exists. The heated body must be gently applied, the applications being multiplied, each not occupying more than three millimetres in extent, and not penetrating beneath the epidermis. As soon as some signs of sensibility have been induced, the cauterizations should be rapidly extended over the entire surface of the body, the patient being driven to crying out, struggling, and resisting. When sensibility is thus everywhere aroused, we may substitute for the cauterization flagellation, inflicted by the hands, fresh nettles, rods, etc. No pause must be allowed in the treatment until the asphyxiated person be completely restored; and, if by any chance he falls into his former condition again, the cauterization must be again had recourse to. 10. Restored to himself again, so far from allowing him repose and sleep, we must not only watch over him for several hours, but tease him by every mode to move about, so as to overcome the tendency to hypostatic congestion, which is one of the constant effects of asphyxia; and which, to all appearance, is the determining cause of death, when this takes place some hours after reanimation.—*Archives Générales*, Tom. VIII., p. 83.

THE PARAPHYMOSIS OF CHILDREN.

By Dr. BOKAI.

M. Bokai describes the mode of maintaining compression in these cases, which, he says, Balassa employs with excellent results at the Pesth Children's Hospital. After cleansing and well drying the penis, a strip of sticking-plaster, about three lines broad, is applied longitudinally, extending from the middle of the under surface of the penis, over the prepuee and glans, avoiding the orifice of the urethra, to the middle

Part of the upper surface. In a similar manner, another strip is brought over the glans, from one side of the penis to the other; and in big boys a third or fourth strip may be required. Over these another strip, three or four lines broad, and six or eight inches long, is wound firmly round the glans behind the mouth of the urethra and over the prepuce, so as to cover one half of it, and extending as far as the middle of the penis. For greater security a second strip may be applied. The application is well borne, and within twenty-four hours the swelling is so diminished as to require the plaster to be re-applied, the evil being usually remedied in forty-eight hours.—*Schmidt's Jahrb.* Band lxxxix. p. 328.

EXCERPTA MINORA.

Separation of the Trachea from the Larynx.—Dr. Berger relates the case of a man who was kicked by a horse just below the bottom jaw. There was hardly any wound, but the neck became much swollen. The breathing was greatly embarrassed, and general emphysema came on, the patient dying in an hour and a-half. The trachea was found almost completely separated from the larynx, the various portions of the latter remaining uninjured. About a third of the connexion with the larynx remained, several rings of the trachea being torn through. The lungs were much loaded with blood, and the trachea was full of coagula.—*Berlin Medicin. Zeitung.* No. 33.

Congenital Division of the Intestinal Canal.—Dr. Jungnickel relates the case of an infant born, to all appearance, in a healthy condition, but who passed no stools, and vomited meconium. Clysters brought away a blackish mass, but the vomiting went on, and the child died on the third day. The œsophagus and stomach were found in a normal condition, but the duodenum was very much enlarged, as was the jejunum for about a foot in length, when it terminated without exhibiting the smallest rudimentary connexion with the rest of the canal. The latter, traced up from the rectum to the small intestine, terminated in an entangled knot, which was connected to the liver, near the fundus of the gall-bladder. It was empty, but up to the knot movable. The rest of the organs were normal.—*Ibid.* No. 36.

Treatment of Itch.—Dr. Schubert states that he always treats itch, both in private and hospital practice, by soft soap and salt. Eight ounces of the former and four of the latter are dissolved in a quart of water, the patient being well rubbed with the warm solution night and morning. It is rather a painful application, but a cure results in 3 or 4 days, and often sooner, except in very inveterate cases, when some more days are required. The skin is afterwards well cleansed in a bath or with soap and water.—*Medicin. Zeitung*, No. 28.

Interstitial Fibrous Tumours of the Uterus.—M. Nélaton is strongly averse to operative interference in these cases. We should oppose the hæmorrhages as they arise by various means; keep up the patient's strength, and await the period of cessation of menstruation. This advice is founded upon his abundant experience acquired while surgeon to the Salpétrière; which proved to him that this description of tumour, once the crisis passed, usually remains stationary, the hæmorrhages ceasing, and the women living long without being sensibly inconvenienced by the tumours.—*Gaz. des Hôp.* No. 91.

Employment of Tannin.—Dr. Berthel recommends the following treatment of chilblains: One ounce of bruised oak-galls should be boiled for an hour in two pounds of water, and the fluid employed two or three times a day forms a most efficacious application. The same result is obtainable by means of a decoction of oak-bark, or by a solution of half an ounce of tannic acid in ʒvi of water. If no ulcerations are present, we may also employ tincture of galls. Tannin as a hæmostatic and styptic, inducing no irritation or pain, is of the greatest service. In gleety urethral discharges, we may advantageously employ ϑj. of tannin dissolved in ʒiv. of water, and combined with ʒj. of mucilage. The same mixture, taken by spoonfuls internally, is very useful in chronic diarrhœa and commencing dysentery. In certain forms of chronic bronchitis, the following formula has been of use, a spoonful being taken every second hour. Tannin, 4½ grains, ext. bellad. 1 grain, ext. cicutæ 3 grains, infus. sennæ 3 ounces, aq. fœniculi, syr. altheæ, of each 1 ounce. Mix. Tannin is also a very useful remedy in menorrhagia, and leucorrhœa, but it requires to be taken in the pill-form for months, and to prevent constipation it should be combined with aloes or rhubarb. *Med. Zeit.* No. 41.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, December 16, 1856.

The first meeting for the present session of the Surgical Society of Ireland was held on last Saturday evening, in the Examination-hall of the Royal College of Surgeons. It was expected that an opening address would have been delivered by the President, Dr. Williams; but indisposition prevented his presence on the occasion. While the cause was much regretted, it was, however, felt that the postponement of the delivery of the address to a future evening was rather advantageous than otherwise, as the two papers brought forward were so important, and excited so much interest, that they occupied the close attention of the Society to a comparatively late hour. In consequence of the Vice-President, Dr. Irvine, having been unavoidably prevented attending until after the time appointed for the meeting, the chair was taken by Dr. Beatty. Mr. Butcher made an exceedingly instructive and interesting communication on the subject of excision of the knee-joint, and illustrated the efficacy of the operation, not only by a series of very beautiful casts, drawings and preparations, which were laid upon the table, but by the production of a man, on whom he had operated two years previously, and whose appearance of rude health, combined with the trifling amount of the deformity left, and of the impairment of his power of locomotion, was the best proof of the complete success of the proceeding to which he had been subjected. The idea of a stiff joint is almost necessarily associated with that of rigid and awkward powers of motion; but, in the present instance, it was remarked by all who were favoured with the opportunity of seeing the man who had been operated on, that he had acquired not only a free, but even a graceful movement of his legs. He jumped upon a chair, and down again, walked across the room, and readily took off the laced boot and stocking which he wore; in short, it was difficult to perceive which was the leg from which the knee-joint had been excised without a close examination, so as to see the deep cicatrix left. The case is detailed in Volume XIX. of the *Dublin Quarterly Journal of Medical Science*, where it is illustrated with very faithful coloured lithographs, both of the patient himself and of the portions of bones removed. Dr. Power read a paper on "The Effects of Tartar Emetic upon the Muscular System, while spasmodically affected by Strychnia." He detailed the particulars of a case which occurred under his observation in the summer of 1843, in which strychnia was exhibited in minute doses for a paralytic affection of the extensor muscles of both forearms. The strychnia produced its full effect upon the muscular system, and it was deemed prudent to control it to a certain extent; for this purpose, minute doses of tartar emetic were administered, and in a few hours the spasms became greatly relieved, and at length disappeared. The tartar emetic was therefore discontinued, but after a lapse of twelve hours, during which time there were no tetanic paroxysms, the spasms reappeared, and were again controlled by the antimony. Dr. Power threw out the suggestion, that probably Palmer may have had some knowledge of this effect of tartar emetic, and that he still continued to keep his wretched victim under its influence, both before and all day after the exhibition of the first dose of strychnia, and up to Tuesday evening, until, in fact, within a few hours of the administration of the second dose of strychnia, which caused his death; and that this may have been done with the intention of masking or disguising the characteristic spasms. A discussion ensued, in the course of which Dr. Carte referred to the very interesting experiment of Mr. Haughton, as to the mutually counteracting effects of nicotine and strychnia, of which I sent you a brief account some days ago.

Two meetings of the Pathological Society have been held since I last wrote, the President, Dr. Corrigan, on both occasions in the chair. On Saturday, the 7th instant, Dr. Mayne exhibited a vaginal polypus which had been removed by the écrascur; he also showed the instrument employed in the operation. Communications were also made by Dr. Banks and Dr. M'Dowel.

At the meeting held on the 14th instant Dr. Mayne brought forward a most remarkable specimen of carcinoma or schirroma of the right lung. The organ presented a very

singular appearance, being much reduced in size, and having acquired throughout its entire extent an almost cartilaginous hardness; and Dr. Mayne stated that the greatest difficulty had been experienced in detaching it from the ribs. The disease, which occurred in a woman aged 45, dated from September, 1855, and had, consequently, lasted fifteen months. The phenomena it exhibited were pain in the chest, extreme emaciation, contraction of the right side of the thorax, with dilatation of the veins over its surface; there was but little cough, and the expectoration was very trifling; the left side of the thorax was morbidly resonant on percussion, yielding a nearly tympanitic sound; the respiration was here intensely puerile; the affected side afforded the most perfect dulness Dr. Mayne had ever heard: the total want of resilience produced a quite peculiar effect; the heart was somewhat displaced, and its sonnds were unusually audible over the entire of the right side of the chest. The respiration on this side was intensely and purely bronchial. The left lung, as well as every other organ of the body, was, after death, found to be perfectly healthy. Dr. Barton exhibited a specimen of constriction of the pylorus, combined with chronic ulcer of the stomach; after which Dr. Fleming brought forward an example of what he was disposed to consider to be "laryngo-typhus," in the form of a gangrenous abscess suddenly supervening in the convalescent stage of fever, in a boy aged 15, and destroying life within three days. In detailing the history of the case, it was noted that there had been no alteration of the voice. Dr. Fleming remarked upon the extreme rarity of laryngeal affections in the convalescent stage of the epidemic fever of this country; specially alluded to a case of Sir Henry Marsh's, of genuine croup occurring in one of the late epidemics in a boy aged 17, in the period of fever above alluded to; and concluded by directing attention to Rokitansky's observations on the "typhous process in the mucous membrane of the air-passages," and particularly on "Laryngo-typhus," stated to be unusually common in many epidemics of typhus in Germany—observations which Dr. Fleming looked upon as illustrating his specimen.

From the returns I have seen of the pupils attending at the several Medical Schools, it would appear that the number of Students in Dublin is about the same this session as it was last year, viz., between 450 and 500.

GENERAL CORRESPONDENCE.

ALLEGED PLAGIARISM.
DR. RAMSBOTHAM AND DR. CHURCHILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—I consider that the Profession owes you a deep debt of gratitude, for having directed their attention so pointedly to the crime of literary piracy; which, unless checked by some bold and strong measure, might ruin the reputation of British authors, as a body, and call down upon their heads the just animadversions of their contemporaries in other countries.

With your permission I will make known through your Journal an act of piracy, by which I have for a long time considered myself much aggrieved. I allude to Dr. Fleetwood Churchill, and the following are the facts that form the basis of my complaint.

In the year 1841, I published, in its entire shape, the first edition of my work on "Obstetric Medicine and Surgery," which had been brought out in monthly numbers, under the title of an "Obstetric Atlas." This work comprised eighty-four plates on steel, and twenty-eight wood-cuts, to which seven fresh plates,—six of them original,—and eight fresh cuts have been added in subsequent editions. The drawings for all the plates and cuts were executed by Mr. William Bagg, of this city, under my own personal superintendence, and the wood-cuts were engraved by his father. Of the cuts every one in the first edition was original. Of the ninety-one plates, many contain two figures, others three, four, or five, and one as many as eight. Sixty-six of these plates were entirely original,—not a few were fresh conceptions, drawn by Mr. Bagg, from instructions personally given by myself, at the expense of much time and trouble. Twenty-five were copied from other authors, chiefly Hunter, Maygrier, and Moreau. In eleven cases I mentioned the source from which I took them;—in fourteen I omitted to do so, either from inadvertence, or from their having been copied by others as well as myself, and their having thus become pretty well known. But so tenacious was I of appropriating the labours of recent authors that I wrote to Dr. Montgomery, personally a stranger to me, for permission to copy one of his plates, which, after a communication with his publisher, was kindly conceded.

Now mark the difference between Dr. Churchill's idea of what is right and my own. Dr. Churchill published the first edition of his work on the "Theory and Practice of Midwifery," in 1842,—the year after mine came out completed,—"illustrated," as he advertised, "by more than one hundred highly finished engravings by Bagg." I have looked through these in vain for even a tolerable sprinkling of original designs; but I find that twenty-eight are copied from Moreau, twenty from my work, and seven from Maygrier,—and this without the least acknowledgment, in any one instance, of the source from which they are derived; moreover, as far as my work is concerned, Dr. Churchill was not contented with appropriating the illustrations; but he, residing in Dublin, actually employed the same artist, whom I had, at considerable cost of time and trouble, so far previously instructed, and who lives in London.

If any one will be at the trouble of comparing the ossa innominata, sacrum, coccyx, and the side view of the skeleton, as delineated in my volume, drawn from nature, and as given in Dr. Churchill's, he will see that the one is clearly taken from the other; and if he will compare my plates 57, 58, and 59 with Dr. Churchill's 86, 88, and 89, he will again see that every line of his has been copied from mine. These three plates, which illustrate the mode of performing the operation of *craniotomy*, were from original drawings, superintended in every stage by myself; and nothing of the kind had been placed before the Profession until my plates appeared. The same remarks apply in their full force to illustrations 65, 67, and 102, which are exact counterparts of my 49, 50, and 73, except that in 65 the hind head of the fœtus is towards the spectator instead of the face; and in 67 the left arm is brought forward instead of the right; alterations which any clever artist could most easily effect. It is remarkable also that in two or three instances where I have altered the previous author's plates, Dr. Churchill has copied the features that I have given to the original.

It may, perhaps, be contended that I myself have copied plates of other authors without acknowledgment, and that it is a common practice to do so. To the former observation I would reply, that although I have omitted to state, in some few instances, from whom the plate was taken, still I have mentioned the name in connexion with some other, and have thus given a strong clue to the first designer, provided any person had curiosity enough to seek it out for himself; but nobody would think of looking into my book for the original of any one of Dr. Churchill's cuts, from any expression he would find in his work. Besides, there is a manifest difference between selecting from those that have been long before the public, and others which have only appeared for the first time within a few months. On the latter part of the sentence I would submit, that it is not usual, nor is it to be tolerated, that an author should appropriate to his own use, as Dr. Churchill has done, the original illustrations of another, only recently published, in a work on the same *identical* subject as his own, in the same language, intended for the same class of readers, and to which his has all the appearance of being a rival production.

Dr. Churchill, indeed, has systematically avoided all mention of my name in relation to the illustrations he has taken from me, although he has engraved the forceps, vectis, craniotomy, and other instruments of the same pattern as in my work, and of exactly the same size. This latter circumstance alone would prove that these cuts are drawn from mine, else they certainly would have been designed less; for, as my page is so much larger than his, the size of the instruments, as delineated by us both—notwithstanding that it suits mine very well—is out of all proportion to his; and the same may be said of the detached bones. Again, Dr. Churchill has given my father's decapitating hook, without mentioning who proposed it, and my long forceps, which he merely designates "the long forceps;" while on the next page appears an instrument of different form, which he characterizes as "Rad-

ford's long forceps." Upon the whole, the appearance of the illustrations in Dr. Churchill's work and mine is so similar, that any one running his eye over the two would be inclined to think, not only that the figures were engraved by the same artist, but that the volumes themselves were by the same hand.

From the very short space of time that intervened between the publication of my work and Dr. Churchill's, confusion is likely to arise as to which appeared first, and whether I had copied from him, or he from me. I may then, unless I set myself right with the Profession, have to bear the odium of committing an act, the imputation of which I would be very unwilling indeed to have thrown upon me. I am, &c.

7, Portman-square, December 15, 1856. FRANCIS H. RAMSBOTHAM.

SIMPLE METHOD OF PREVENTING ACCIDENTS FROM CHLOROFORM.

[To the Editor of the Medical Times and Gazette.]

SIR,—As there seems to be considerable discussion going on just now about the dangerous effects of chloroform, I take the liberty of writing you a note on the subject, merely to mention that ever since Dr. J. Y. Simpson made the qualities of this powerful agent known, I have been in the habit of using it freely in an extensive midwifery and general practice; and although I have used it at least one thousand times, I have never seen the least bad consequences follow from it, and I consider that this success depends greatly on the precaution I take before administering the chloroform; this simply consists in administering a glass of spirits or wine,—I prefer the former, even to ladies. The wine, or spirits, seem to exercise no effect on the chloroform, while their stimulating quality keeps up the action of the heart during the time the patient is under chloroform, and prevents sinking. I had occasion some years ago to perform a slight Surgical operation on a lady who was fearfully afflicted with asthma and excessively nervous. Her husband being a Medical man, now in the west-end of London, objected to the use of the chloroform in such a case, but I assured him that the wine would prevent any evil happening. The operation was performed, the patient saved from the pain of it, and to her great relief she had no return of asthma for a long time, and when it did return, she had recourse to the chloroform, which, for a time, gave her great relief. On one occasion, while I was removing a schirrous tumour, the patient, who was rather advanced in life, got an overdose of chloroform, and we had great fears of her being permanently roused, and I do believe that her recovery was owing entirely to injecting a glass of brandy-and-water into the rectum. The accident happened owing to the gentleman who had charge of the chloroform getting so interested in the dissection, that he forgot to raise the towel off her face till respiration had become imperceptible. However she soon rallied. I enclose the name and address of the Medical gentleman referred to.

I am, &c. PURVUS.

ON THE SPONTANEOUS CURE OF NÆVI MATERNI.

[To the Editor of the Medical Times and Gazette.]

SIR,—In 1850, I read before the Abernethian Society of St. Bartholomew's Hospital an account of some nævi "materni," which I had injected and examined, to show that there exist three varieties of the disease, arterial, capillary, and venous. The first is the "pulsating" tumour, composed of arteries dilated suddenly into sinuses five or six times their normal diameter; the second is a similar condition of the capillaries, as has been proved by microscopical examination, and constitutes the strawberry or mulberry spot; the third is less frequent, and consists in a varicose condition of the smaller veins. I need not remark on the trouble which Surgeons sometimes experience in treating these comparatively little ailments.

I was lately struck with a remark from my friend Mr. Bickersteth, of Liverpool, who reminded me how rarely these spots or marks were seen in the adult; and, on referring to my notes, I find the particulars of a case in which a spontaneous cure was going on.

The nævus was taken from a child 2 years old, and it consisted of a number of vessels and cysts containing a thick, spontaneously coagulating, yellowish fluid. The cysts were dilated vessels, their continuity with the other canals being cut off. They contained fibrin, altered blood discs, and granular matter. The tumour had ceased to grow as a vascular structure; but the vessels, tortuous and with thinned walls, were becoming dilated into cysts, by which some increase in the bulk of the tumour was still being produced. But I have no doubt that this disease would have come to a natural termination, the circulation having stopped, and the normal structure of the vessels having been destroyed.—I am, &c.

Norfolk-street, Strand. HOLMES COOTE.

ON THE DIAGNOSIS OF PRIMARY SYPHILIS REQUIRING MERCURIAL TREATMENT.

[To the Editor of the Medical Times and Gazette.]

SIR,—Although no follower of Mr Langston Parker, or of the school to which he belongs, I think it is of importance that it should be distinctly understood that there is no difference of opinion among medical men, as to the indications of suppurating bubo.

Mr. Henry Lee in your last publication reiterates the statement that Mr. Langston Parker considers that the presence of a suppurating bubo is an indication for the exhibition of mercury, and in evidence of this he quotes from that gentleman's book on syphilis a case in which mercury was given although suppuration "appeared probable;" but what was the fact? Mr. Langston Parker doubted whether it had really commenced, and the facility with which the bubo became resolved, showed that his doubts were justified.

Again, Mr. Lee quotes from Mr. Parker that in bubo, "unless especially contra-indicated, mercury may be employed to assist the resolution of the tumour;" but upon referring to the passage in his book, (p. 144,) I find that Mr. Parker only states this as the opinion of some, particularly of the late Mr. Wallace, but that his own conviction is, "that the general employment of mercury is, to say the least, unnecessary, except so far as it may be used with a view of controlling inflammatory action."

But there is no necessity for either Mr. Lee or myself speculating as to what Mr. Parker's views are, because he has most distinctly himself stated them in the *Association Journal* for the 22nd of last November. He there defines the bubo which he believes to indicate the use of mercury, "by distinct enlargement of one or more glands in one or both groins, which glands are hard and tender, but which have not suppurated and do not apparently contain matter." He adds, "I do not mean and never said, 'in suppurating bubo.'"

Notwithstanding this plain statement, Mr. Lee reiterates his charge that Mr. Parker recommends mercury in suppurating bubo, and obscurely says that "if Mr. Stapleton's meaning is not clear, the fault does not rest with me."

I am, &c.,
MICHAEL HARRY STAPLETON

1, Mountjoy-place, Dublin.

[We have omitted the concluding paragraph of Mr. Stapleton's letter, as unbecoming in a scientific discussion.—ED.]

TUBERCLE AND ANEURISM.

[To the Editor of the Medical Times and Gazette.]

SIR,—In questions of Pathology, statistics are all-powerful, and as my letter of last week was written purely with the view of eliciting information, I trust you will allow me space for these few lines, in order cordially to thank Dr. Fuller for the trouble he has taken in my behalf, by collecting the very convincing statistics contained in his letter. We all have some difficulty in getting rid of preconceived ideas, and the frequent co-existence of aneurism and tubercle *was* one of mine, and of many others likewise.

I am, &c.,
STANHOPE T. SPEER.

Eton House, Cheltenham, Dec. 20th, 1856.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

DECEMBER 2, 1856.

Mr. ARNOTT, President, in the chair.

(Continued from page 605.)

Dr. PEACOCK and Dr. BRISTOWE exhibited

DISEASED SUPRA-RENAL CAPSULES

from two cases in which no bronzing of the skin had been present. The first case was that of a female, aged 18, a patient of Dr. Peacock, at St. Thomas's Hospital. She stated, when admitted on the 3rd of December, 1855, that she had been suddenly seized with pain in the right hypochondrium three months before, and about the same period fell down stairs, and was said to have injured herself internally. When admitted she laboured under severe aching pain in the left thigh and leg. These symptoms subsided under treatment; but the pain, tenderness, and swelling in the knee continued, and subsequently the limb become œdematous, and the œdema extended upwards above the groin. It was inferred that there was some deep-seated growth pressing on the veins of the left lower extremity; but no such tumour could then be detected. In March she was seized with bronchitis, and as she became emaciated a swelling in the left side of the abdomen became very obvious. She died exhausted by continued suffering in April last. During the last periods of life, so far from her skin being bronzed, her complexion was peculiarly pale and clear.

Body emaciated and extremely pale. On post-mortem examination medullary cancerous growths were found in various parts of the body. The left lower extremity was much swollen, and springing from the periosteum of the lower extremity of the femur was a mass of malignant disease, which completely surrounded the shaft. Both lungs were thickly studded with soft cancerous growths, from the size of a hazel-nut downwards, many of which projected from the surface, and a few of which were pedunculated. The bronchial glands formed an encephaloid mass, about as large as a hen's-egg. The liver presented a tolerable number of growths, from the size of a marble downwards. The peritoneum, especially that covering the pelvic organs, presented nodulated cancerous outgrowths, and the same kind of formation was observed at the base of the right pleura. The kidneys were much enlarged and irregular in shape. The irregularity was due to marks of cancer developed in the substance of the organ; some of these formed nodulated marks projecting into the cavities of the organ. A mass of diseased glands, about as large as the pit, were situated in the left groin, and these were connected by a chain of diseased glands, with a mass of similarly diseased bodies, nearly as large as a small cocoa-nut, in the lumbar region. These glands were in close relationship with the hilum of each kidney, and indeed some of the glands projected more or less over the upper part of each organ. The supra-renal capsules were carefully looked for, but no trace of healthy organs could be found. Masses of cancer, which could scarcely be distinguished from the diseased glands around, occupied the position in which the capsules should have been found, but they were connected more or less with the glands, and it was really impossible to say positively how much of these masses was formed of the diseased capsules. Those parts of the masses which were undoubtedly due to disease of the capsules, appeared to the naked eye to present all the characters of encephaloid cancer, and under the microscope presented the same elements as the malignant growths in the other organs of the body.

Case 2.—A man, aged 55, also a patient of Dr. Peacock's, in St. Thomas's Hospital. When admitted, in June last, he presented symptoms of anæmia, with cough, pain in the limbs, and general want of power, which, he said, had commenced about five months before, but he had been able to work till one month ago. In the absence of any obvious local affection sufficient to explain his symptoms, it was supposed, as he had worked forty-six years as a coppersmith, and as a deep purple line existed at the edges of the gums, that he might be suffering from cupreous impregnation, and he was prescribed iodide of potassium in consequence. He did not, however, improve with that treatment, and it was replaced by tonics with cod-liver oil. He became, nevertheless, exceedingly emaciated, had a very troublesome cough and expectoration, vomited his food, and suffered from diarrhœa, and he died exhausted at the end of August. Throughout his illness no peculiar darkness of the skin was observed, nor was any affection of the supra-renal capsules anticipated. The gums were carefully examined by Dr. Dundas Thomson for copper, mercury, or lead, without any traces of any of these metals being detected.

The body was much emaciated, and in several of the organs were cancerous growths which were soft, white, and brain-like, and yielded cream-like juice on pressure. Two, one as large as a horse-bean, and one as large as a pea, were found in the substance of the heart. Five or six, between the size of a pigeon's egg and that of a marble, were discovered in each lung; and in the upper part of the left kidney was a mass of the same kind of diseases, about as large as a good-sized orange. Several of the ribs also were infiltrated by malignant growth for two or three inches of their length. The supra-renal capsules were enlarged and plump, their thickness being about ¾ of an inch. They appeared to be wholly destroyed, their original substance being replaced by a soft white encephaloid deposit; and to the naked eye there were no remains of the original gland-structure. Under the microscope the diseased capsules, as well as the cancerous tumours in other organs, were found to be made up chiefly of nucleus-like bodies.

Mr. SEDGWICK exhibited a

LARGE ENCEPHALOID TUMOUR FROM POSTERIOR MEDIASTINUM.

A laundress, aged 55 years, after much suffering from dysphagia, ultimately lost so far the power of swallowing, that for several weeks before death neither food nor drink seemed to enter the stomach, but was apparently arrested about midway in its passage downwards, and quickly rejected unchanged. Life was supported during this period by the administration, three times a day, of enemata of beef broth with cod-liver oil. After death, a large, irregularly defined, nodulated tumour was found in the posterior mediastinum, presenting on section and under the microscope the characters of encephaloid cancer. The œsophagus for 4½ inches of its course was in immediate relation with, and partly imbedded in, this morbid mass; but it admitted with some difficulty of the passage through it of a forefinger, even at the part where it was most imbedded in the tumour. The vena azygos, for two inches of its course, was filled with and partly distended by, an elongated mass similar to the firmer part of the tumour itself. The vagus nerve on each side was imbedded in the tumour, and exhibited a remarkable fusiform enlargement, which, examined microscopically, presented a basis of granular matter, with fine fibres, intermixed sparingly with nerve tubules.

Mr. Sedgwick directed the attention of the Society to the morbid conditions of the vena azygos and vagus nerves. The deposit found in the vena azygos in this case corresponded with the condition of the same vein in a case of osteoid cancer recorded by him in the *Medico-Chirurgical Review* for last year. The bulbous enlargement of the vagus nerves he regarded as essentially connected with the prolonged suspension of the function of the stomach, and partly the cause of the food being rejected,—*the act of deglutition*, as regarded the lower half of the œsophagus, having been *reversed*.

Mr. HOLMES showed the parts removed from a case of

SPINA BIFIDA TREATED BY PUNCTURE, PRODUCING OPISTHOTONOS.

DEATH FROM DIFFUSE INFLAMMATION OF THE MEMBRANES O THE CORD.

L. M., aged 20, admitted into St. George's Hospital, under the care of Mr. Tatum, on account of a tumour of the buttock. This patient was a Welshman, and could hardly speak any English, but, as far as the account which he and his friends gave of the case could be understood, it seemed that the swelling had existed from the time of birth, and had been gradually increasing up to that period, without giving him any pain or occasioning any disturbance to the functions of the spinal cord, except on two or three occasions, at distant intervals, when the tumour burst from ulceration of the skin. At these times it was said that involuntary movements of the limb were noticed, and that the bowels acted unconsciously.

The tumour was larger than a man's head, situated at the lower part of the sacral region, and attached by a broad short pedicle, as it was supposed, to the lower part of the sacrum, in the middle line. The lowest part of this pedicle was about two inches from the anus. The parts in this neighbourhood were a good deal thickened, so that the deep connexions of the tumour could not be accurately made out. Its contents fluctuated very distinctly; its surface was covered by large tortuous veins, and the skin was ulcerated in one or two places from the irritation of his clothes. He seemed in good health, and suffered no inconvenience from the swelling, except what was occasioned by its enormous size. This annoyance, however, was so great that he was willing to submit to any operation that would afford him a prospect of cure. The tumour was punctured with a grooved needle, and found to contain a clear, transparent, light-yellow fluid, differing from the serum of the blood in containing a much less quantity of albumen. Five days after admission a trocar was introduced at the lowest part of the swelling, a little to one side of the middle line, and about half a wash-hand basinful of this fluid drawn off. This left the tumour about the size of his head. Two days after the tapping, erysipelas appeared round the puncture. He complained of pain in the belly and in the head, and it was noticed that he kept the head drawn backwards. The pulse was rather weak, but few constitutional symptoms were noticed. Wine and diffusible stimulants were given. Next day the urine and fæces passed involuntarily, and the head was still further retracted. No muscles appeared then affected, except the deep muscles at the back of the neck. The retraction increased daily during the next three days, accompanied by pains about the lower part of the sternum, and difficulty of swallowing; the latter, however, was probably due only to the position of the head, which on the third day of the attack was noticed to be pushed back so as almost to make a right angle with the spine. This position was not noticed to be altered in sleep. The treatment consisted in the exhibition of mercury in the form of bichloride. The erysipelas of the skin soon subsided, but the opisthotonos continued, with rapidly increasing prostration. On the sixth day after the tapping, and fourth after the attack of erysipelas, the tumour gave way, from extrusion of one of the ulcerations previously noticed, and its contents were almost all discharged in the course of the day. His strength continued to fail rapidly, and he died in the evening.

On post-mortem examination, the sac was seen to be lined by a membrane resembling mucous membrane in appearance, highly vascular, and coated in some places with lymph. At the upper part of the neck of the sac was an aperture, apparently in the situation of the natural orifice of the sacral canal, and leading into the subarachnoidean space. The bones seemed perfectly ossified. The membranes of the cord were much thickened. Extending along the cord from its lower end to about the middle of the dorsal region, was a collection of pus, and the cord in this situation was softened in the parts adjacent to the purulent fluid; otherwise it was quite healthy. None of the spinal nerves were found to communicate with the sac. There was a large quantity of cerebro-spinal fluid, which was opaque and of a dull grey colour. The cranium was perfectly ossified, but very thin; the brain and the rest of the viscera were healthy.

Mr. Holmes showed a specimen of

INTUSSUSCEPTION OF THE SIGMOID FLEXURE OF THE COLON AND LOWER PART OF THE RECTUM.

The patient, a man of about 40, by trade a tailor, applied for admission on account of what he said he had been told was a fistula. On inquiry, however, nothing could be ascertained from him except that he had been suffering from alternate constipation and relaxation of the bowels for some time. Of this he had taken little notice, as he, like most men of his trade, was subject to other irregularities. For some days preceding (he said for more than a week) he had had no action of the bowels. This constipation had followed immediately on an attack of diarrhœa. He looked very much out of health, but was not particularly feeble. He was sent to bed, and laxative medicines given. There was no fistula. On the second day after his admission, as no action of the bowels had taken place, an examination was made. The sphincter was so relaxed that it offered no resistance to the passage of one or more fingers into the bowel. Projecting into the gut, to within about half-an-inch of the anus, was a soft, cylindrical tumour, of uniform consistence, smooth on the surface, and covered by the mucous membrane. The finger, when pressed up as far as possible at the back part of the gut, discovered the reflexion of the mucous membrane from the tumour to the wall of the intestine. In front, however, nothing was felt. No opening could be detected in the tumour. An exceedingly foul discharge of mucus, mixed with sanies and fæcal matter, escaped from the anus. The belly was not much distended, but tense and resonant; a little tender to pressure. There was no vomiting, and the tongue was clean; the pulse rapid and weak. Calomel and opium three times a-day was ordered. In the afternoon acute pain was complained of in the belly, and slight sickness came on; the pulse was very much weaker than in the morning. The pain increased rapidly, and in the evening was extremely severe. He experienced some slight relief from the application of leeches, but the pulse sank so alarmingly that it was necessary to give him stimulants. An attempt was made to introduce a small bougie, but it could not be passed. The pulse soon became imperceptible, the extremities and lips cold, and he died in the morning.

Owing to peculiar circumstances,—the examination was not made till three days after death (he died in the summer), and in a very hurried manner,—only the intestines were examined. Decomposition was advancing rapidly. On opening the peritoneal cavity, it was found full of semi-solid fæces. The great intestine was very much distended, and very black. About the middle of the ascending colon was a large ragged perforation, from which the fæces were straining out on pressure. No other lacerations were seen in the gut at this part. The small intestine appeared healthy. The invaginated part of the great intestine was removed from the body, together with the bladder and prostate. The intussuscepted portion measured more than three inches. The mucous membrane coating the gut was dark, and abraded in some places. A small opening existed at the apex of the protruded part, of an irregular form, with ragged edges, which proved to be that of the canal of the intestine. At the point where the intussusception commenced the gut was considerably constricted, and here a perforation existed at the anterior part, leading into the recto-vesical pouch of the peritoneum.

EPIDEMIOLOGICAL SOCIETY.

Monday, December 1.

Dr. Babington, President, in the Chair.

A paper "On the Climate of the Crimea, and its Effects on Health, as observed during the first year of the occupation by the Allied Forces," by Dr. Smart, of H.M.S. Diamond, and late in charge of the Naval Brigade Hospital at Balaclava, was read by Dr. M'William.

Dr. Smart introduced the subject of his paper by a few very appropriate observations on the early, as well as the modern, history of the Crimea. He stated that, in the earliest passages of European history, Cimmeria, now the Crimea, was fabled to be a land involved in perpetual mists and darkness, its inhabitants addicted to the most barbarous practices, and so inhospitable that they sacrificed all strangers to a relentless female deity. At length some Ionian adventurers, undaunted by these fables, or by the general belief of the innavigable nature of the intervening sea, pushed boldly across, and reached a sunny shore, with far receding fertile plains. Here they founded the city of Panticapæum, that exists to this day under the name of Kertch, which, owing to the excellence of its commercial situation, arose, from being the humble tributary of a barbarous people, to the dignity of the seat of a kingdom; and has since been, in succession, a dependency of the Pontine, Roman, Byzantine, Ottoman, and Russian empires. From that date (B.C. 650 years) Commerce began to carry civilization on her wings to the remoter parts of Scythia, and to return laden with the native productions of those vast plains and interminable forests. The importance of this commerce increased with the growth of the Byzantine empire; but when the Eastern mistress of the world became the metropolis of the Ottoman empire, Cimmerian darkness again enshrouded these favoured regions; and thus the ancient fables concerning them have been almost equalled in modern days. Before the Massacre of Sinope had stained

the waters of the Euxine with blood, our fleet lay in the Thracian Bosphorus, hesitating to enter a sea of which the pilotage was unknown, presuming it to be studded with undiscovered shoals, and obscured by clouds pregnant with storms. Two years have sufficed to dispel such delusions, and Western Europe remains no longer in ignorance of these among the fairest regions of the earth, the borders of that great basin into which the largest rivers of Europe pour their inexhaustible floods. The labours and triumphs of war have conduced, in this instance, to the extension of the arts of peace. Our pilots now navigate fearlessly the furthest recesses of this sea, knowing that its broad bosom is free from hidden dangers. Our merchants have become more fully acquainted with the resources of the fertile provinces extending from its shores, which, when fully developed, will render it an almost unequalled emporium for the supply of less productive regions, opening up at the same time a wide field for the spread of our commerce and manufactures. This general good has been earned at the cost of legions of which Britain was justly proud, whose sufferings have been wrongly attributed, in great measure, to the nature of the climate in which they were called on to undergo military labours, with numbers unequal to their task. Enfeebled by epidemic disease, they were landed in the Crimea when winter was close at hand, to encounter a skilful and unwearied enemy; and after conquering in the field, to restrain within his fortifications this foe, possessing unlimited resources and the advantage of winter quarters, while they themselves lay encamped in the open field, suffering the worst evils of poverty. Calamities beyond calculation naturally followed; intrinsically of such a nature, they were somewhat increased by the rigour of the climate. To describe the natural features, and to account for some of the more obvious phenomena of the climate and seasons as observed throughout the first year of the occupation by the allies, form the main object of Dr. Smart's communication. The Crimea (observes Dr. Smart) being almost surrounded by water, and connected, by means of a narrow short isthmus, with a vast extent of flat country, possesses, from its conformation and contiguity, a climate partaking of both those orders of characteristics distinguished by the terms *continental* and *insular*. These opposite characters do not, however, impress their traits continuously, so as to mark each its own seasons of the year, but by their frequent alterations serve rather to stamp the climate as an irregular and inconstant one, from which it may be anticipated that the advent and course of the seasons will be found to vary much in a series of succeeding years. In describing briefly the leading features of the seasons, through the first year of the occupation by the allies, and that of the capture of Sebastopol, each in succession, it may be said of the winter, that its *mean* temperature was mild, much moisture being deposited in the early part of the season—to the end of December; after which there were very heavy falls of snow, with low depression of the thermometer continuously through a space of three weeks. This, which may be regarded as the climax of the winter, occurred early in January, and in receding or in advancing from that period there was not any great duration of cold. A most striking peculiarity of the winter was the suddenness of succession of great variations of temperature, by which animal and vegetable life were submitted with rapidity to the accelerating effects that more properly belong to spring, and again acted on by the retarding influences of the depths of winter, very marked changes of this kind being completed in the course of a very few hours. These were simply the interchanges of the continental and insular conditions of climate, which were felt extremely in the position occupied by the allies, the Chersonese, because the mountain barrier that shelters from the northern influences does not extend so far west. As early as the middle of February, sometimes at noon the thermometer was observed to have risen to 70° Fahrenheit; and the galanthus and crocus, the first offerings of a grateful soil, were seen thus early bedecking every bank; and numerous varieties of bulbous and orchidaceous plants were in flower. The spring season, from the early part of March to the end of April, was warm, and the ground was moistened by showers that fell frequently during the day, the night being cold, clear, and dewy. The invigorating effects of this season on the animal kingdom were strongly exemplified in the large flights of migratory birds that tarried on these shores in their course to their northern fields,—in the improved condition of the domestic animals, that had withstood the vicissitudes of the winter,—and in the joyful spirit pervading the camp. The heat of the summer was at no time excessive, not equal to that to which our troops are accustomed when stationed at Gibraltar or Malta; but in May and June it was oppressive, from extreme dryness of the atmosphere, with northerly winds that absorbed every atom of moisture, giving very few showers in return. This dry heat was much complained of, because of the great evaporation that goes on from the surface of the body while it lasts, but it did not appear to be unhealthy. The summer season changed imperceptibly into that of autumn; and, regarding autumn as a whole, Dr. Smart knows no country in which the climate is found more agreeable to the sensations by a succession of cool nights to warm clear days than marked its course to the end of October, when the north wind, blowing coldly at intervals, suggested the necessity of a return to winter clothing. The change from autumn to winter, in 1854, was as sudden as that from winter to spring; this change depresses even more than that exhilarates, in consequence of the continued rains, rather than of severe cold, attending its commencement. The sudden mutations of temperature, to which the climate of the Crimea is liable in the winter months, was more hurtful to the health of our forces than any other of the climatic conditions. These changes of heat and cold were the sequences of the shiftings of the winds from the northerly to the southerly direction, and *vice versâ*. A fall of 30 degrees within a few hours was by no means an unfrequent occurrence. It has been said, that these great vicissitudes of temperature of the winter season, together with the frequent electric changes of the summer, as dependent on the alternations of the two principal winds, or rather the changes in the altitude and position of the planes of these atmospheric currents, are determined by the mixed continental and insular conditions of the land, and the configuration of its surface. High mountains range along its southern coast, and form a boundary rising into the clouds, that causes the insular conditions of climate to predominate south of its barrier, over that narrow strip of coast which resembles in its scenery, as well as in its climate, the Italian "Riviera," between Nice and Genoa. To this shore the Imperial family and the nobility resort, to enjoy the balmy influences of a southern clime, in villas seated amid the soft seclusion of luxuriant valleys, or on the sunny aspects of mountain slopes that decline rapidly towards the sea. Northwards of this mountain range, the whole aspect of the country and its climate, except in a few sheltered vales, are assimilated to the continental conditions of Southern Russia. The flanks of the mountain range, of which the western was the seat of war, are obnoxious to all the inconveniences of the alternations of climatic condition to which allusion has been made. The character of the produce of a land and the earlier or later date of its harvests are general, but withal good criteria of the average conditions of the climate. To apply this, it may be stated that, on first arriving at these shores in the middle of September, 1854, it appeared significant of a moderate mean temperature of the summer, that the cereals had just then been reaped, and were but partially gathered in, while the grape was not yet ripe for the vintage; and the absence of the olive afforded evidence that the production of its oil does not enter into the profitable agricultural resources of a country where much of the commodity is in demand. These facts would lead to one of two inferences: either that the summer of 1854 was behind the average of years, or that the climate of the south-western portion of the Crimea, in its main features and mean temperature, resembles more closely that of Belgium, and the South of England, that lie 5° north of it, on the western or oceanic confines of Europe than the plains of Lombardy and central France, which are situated within its own parallels. Dr. Smart then proceeds to examine, *seriatim*, the atmospheric and marine currents, the effect upon temperature and climate of the great rivers, which after draining the vast expanse of land extending from the northern slopes of the Caucasus to the eastern precipices of the Swiss Alps, and from the Balkan and the Dalmatian Alps in the south, to the hills of moderate height that form the northern boundary of the great central plain of Russia, pour their waters into the Euxine; and the hygrometric and electric conditions of the atmosphere. A rapid but masterly sketch of the principal camp diseases, during the occupation of the Crimea by the allied forces, formed the concluding part of the paper.

A discussion followed the reading of the paper, in which Dr. Milroy, Mr. Rawlinson, Dr. Snow, Dr. Greenhow, and Dr. M'William, took part. Dr. Milroy and Mr. Rawlinson, having been employed as sanitary commissioners in the Crimea, highly eulogized the great zeal, ability, and usefulness which marked Dr. Smart's conduct while in the responsible charge of the Naval Brigade Hospital, at Balaclava.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

December 5, 1856.

Dr. W. H. Fuller, V.P., in the chair.

The fourth meeting of the session was held this evening.

Dr. S. Scott Alison read a paper

ON THE SPHYGMOSCOPE.

The sphygmoscope or cardioscope measures the extent of the impulse of the heart. By means of it the mind is assisted in estimating the impression made upon the hand by the shock of the heart. In the investigation of many properties besides extent, this instrument affords evidence which the hand is scarcely fitted to supply. The sphygmoscope notes the very instant the impulse commences, the exact period it lasts, the space of time, if any, which lapses between the impulse and the diastole, the moment of the commencement of the diastole, the time of its duration, and the pause, if any, between it and the next systole. It marks the unity or the divided character of the contraction or the diastole, and the rates of velocity of the respective parts, when the movements are divided. The phenomena occurring in one impulse period are readily compared with those occurring in another. With the aid of mediate or immediate auscultation, the relations of the heart's movements are made out with great delicacy and accuracy. It seems to indicate the relative time of the arterial beat in all parts of the body with the cardiac impulse; the arterial beat being discovered either by the hand or by a small instrument of the same construction as the sphygmoscope, and by means of India-rubber tubing, laid alongside the chief instrument. The extent of the impulse is indicated by the sphygmoscope, the same as when the hand is employed; is most in children, in women, in tall thin men, the nervous and excitable, and those suffering under phthisis in its latter stages, or from hypertrophy, or hypertrophy with dilatation of the heart. while the instrument is little affected by the soft, fatty, or flabby heart. The very fat scarcely influence the instrument. The sphygmoscope usually indicates a uniform rate of systole, sometimes it marks a difference of rate between the commencement and the conclusion, and a division has been noticed in one or two cases. The same observations hold in respect to the diastole. No pause is usually observed at the conclusion of the systole, but in one or two persons a slight stop has been noted. Contrary to what might be expected, it is only very rarely that any distinct pause is indicated between the conclusion of the diastole and the commencement of the succeeding systole. The impulse of the heart is indicated by the rise of the instrument, the diastole by the fall. The first sound of the heart is synchronous and isochronous with the ascent, and the second sound is synchronous with the first part of the fall. The finger applied to the radial artery feels the arterial beat at the commencement of the fall. A small instrument applied to the same artery, and having its glass tube placed beside the heart instrument, is affected at the instant the latter instrument begins to fall. The radial pulse, estimated in either way, is likewise synchronous with the second sound of the heart. The synchronousness of the commencement of the fall of the heart-instrument indicating the commencing diastole, of the radial pulse felt with the finger, and indicated by the small instrument, and of the second cardiac sound, is ascertained by the corroborating and mutually guiding evidence of three senses, viz., the eye, the touch, and the ear. This important fact is opposed to the teaching of both physiologists and pathologists. While the radial artery beats only at the conclusion of the rise of the instrument, *i. e.*, after the commencement of the systole, by the whole period of the duration of that movement, which is equal to half a second in the case of a man whose heart beats sixty times in a minute, and whose systole and diastole are of equal duration, and in whom no pauses are made out, no appreciable interval is made out between the rise of instruments placed upon the most distant parts of the body. The simultaneous rise of distant arteries, and with the cardiac rise, is seen by placing the instruments close together. While the heart instrument rises the arterial instruments fall, and *vice versa*. The pulse beat may be conveyed through four or more feet of elastic tubing without loss of time. Thus, a small glass tube applied to the radial artery, and another, supplied with four feet of elastic tubing, adapted to the same vessel, rise at the same instant of time. The diastole of the pulse is shorter than the systole of the heart, and the contraction of the artery always continues till the next diastole or pulse. When the pulse intermits, the contraction equally continues till the next pulse. In disease the impulse may be greatly reduced or altogether lost, as in emphysema and double hydrothorax. The impulse area is increased in hypertrophy with dilatation, and the impulse that may be found dispiaced, raised as high as the second rib or lowered as much as the eighth. The displacement may occur to the right side. Systolic murmurs, like the first sound of the heart, are heard during the ascent of the instrument. They are isochronous. Diastolic, aortic, and pulmonary murmurs, are heard during the descent, and the sound and the fall are isochronous, unlike the healthy second sound and the fall, the healthy sound occupying only the first part of the fall. The healthy sound depends upon an act occurring at the first part of the diastole, the murmur depends upon an act, viz., regurgitation, lasting the whole period of the diastole. Frémissement botaire has hitherto been found to occur during the ascent of the instrument, *i. e* , with the ventricular systole. This has been felt during the rise, while regurgitant arterial murmur in the same patient has taken place during the fall. The sphygmoscope gives intimation of cardiac impulses which fail to give any appreciable radial wave. For the purpose of restraining the elevation of the præcordial region in the act of inspiration, and thereby securing the unmixed cardiac movements, a border of wood is supplied to the cup of the instrument, and by means of this the præcordial region is slightly compressed. Modified, this instrument is converted into a pneumatoscope, or breath explorer. It gives the duration of the inspiration and expiration, and of pauses when they occur. When expiration is divided, the fall of the instrument is divided. No pause has been observed between the completion of inspiration and the commencement of expiration, but in some persons a very long pause. One-third of the respiratory period has been noted between the completion of expiration and the commencement of inspiration. The comparative extent of inspiration in the two sides of the thorax, or in different parts of the same side, is exhibited by different instruments having their glass tubes brought together for inspection. By means of two instruments so arranged, it has been found that the commencement of the respiratory acts at the top of the chest and at its base is simultaneous, contrary to the views of some teachers. The external respiratory muscles and the diaphragm act in perfect unison. Most of the observations made with the sphygmoscope on diseased heart, have been obtained in the author's practice at the Hospital for Consumption and Diseases of the Chest at Brompton.

At the conclusion of the reading of the paper, Dr. Alison demonstrated the application of the instrument upon some gentlemen present, confirming the views set forth by him.

The meeting adjourned to the third Friday in January, when a paper will be read by Dr. Edward Smith.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 18, 1856:—

Browne, William Valentine, St. Asaph, N. Wales.
Deamer, William, Brant Broughton, Newark.
Dowson, Arthur Houghton, Gildeston, Norfolk.
Graham, William, Coxhill, Lincolnshire.
Johnston, Joseph Salkeld, London.
Lewer, John Richard, Wimborne, Dorset.
Manning, Joseph, Northampton.
Mullings, Frederick John, Bishop's Stortford West.
Pigg, Charles, Wokingham, Berks.
Ransome, Arthur, Manchester.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted members of the College at the meeting of the Court of Examiners on the 12th instant:—

Barker, Edgar, Oxford-square.
Bird, William, Hon. East India Company's Service.
Brooks, Richard Birkett, Sleaford, Lincolnshire.
Bury, George William F., Whetstone, Middlesex.
Dalton, Frederick, Cirencester.
Girdlestone, William T., Wordsley, Staffordshire.
Lawrenson, Richard Charles Pasley, Royal Navy.
Liddon, William, Trunton, Somerset.
Raddock, Charles Edwin, Medical College, Bengal.
Smith, Samuel Wagstaff, Carnarvon.
Storrs, Robert, York.
Thomas, Richard, Beaumaris, co. Anglesey.
Willis, Robert, Dublin.

At the same meeting of the Court, Mr. Leonard Henry Joseph Hayne passed his examination as Naval Surgeon. This gentlemen had previously been admitted a member of the College, his diploma bearing date July 7, 1851.

Also on the 19th instant—

Allinson, Augustus Ward, Beresford-square, Woolwich.
Barrett, Osman, Finsbury-square.
Callender, William, Newcastle.
Gover, Robert Mundy, Andover, Hants.
Hawkes, Edgar Coulson, Bishop's Stortford, Herts.
Keddell, William Frederick, Sheerness.
Reid, David Boswell, University College.
Walker, Nathaniel Osberne, Woodhouse, Toronto, Canada West.
White, William Acraman, Frome, Somerset.

Licentiates in Midwifery.—The following members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery of the Royal College of Surgeons of England on the 11th instant, viz.:—

Bird, William, Hon. East India Company's Service, diploma of membership dated Dec. 12th, 1856.
Boyle, Thomas, Truro, Cornwall, June 13th, 1856.
Davis, Arthur A., Fowey, Cornwall, June 16th, 1854.
Eaton, F. J., Grantham, Lincolnshire, April 4th, 1855.
Elkington, John, Birmingham, April 30th, 1855.
Hall, Cornelius, Henfield, Sussex, June 27th, 1856.
Marshall, E. J., Walsall, Staffordshire, April 11th, 1856.
Riddell, A. N. E., Dreadnought Hospital Ship, Deptford, May 21st, 1852.
Smith, W. A., Southam, Warwicksh., March 31st, 1856.
Stewart, William, Army, July 31st, 1854.
Winter, James, Dublin, Oct. 15th, 1852.

DEATHS.

Brough.—Dec. 13, at St. Helier's, Jersey, after a long and painful illness, Thompson Brough, Esq., M.D., late of Kiltegan, Co. Wicklow, aged 59.

Paris.—Dec. 24, John Ayrton Paris, M.D. Cantab.; Hon. D.C.L. Oxon; President of the Royal College of Physicians; Member of the Medical Council of the Board of Health; late Senior Physician to Westminster Hospital; Vice-President of the Royal Society; President of the Vaccine Board; Trustee of the British Museum.

Testimonial to Professor Sands Cox.—A meeting of the Council of the Queen's College, and friends of this gentleman, was held on Wednesday last, John Ratcliff, Esq., the mayor, in the chair, for the purpose of considering the propriety of raising a subscription to provide a suitable testimonial to Mr. Cox, in consideration of the eminent services which he has rendered to Birmingham by the establishment of the College and the Queen's Hospital. The Chairman briefly opened the business by observing that the only question was the sort of testimonial which would be most appropriate and agreeable. Mr. Haines said he was enabled to state that he knew Mr. Cox would not accept anything for himself. His great object had ever been the good of the Queen's College and Hospital, and if the public considered that anything could be done, through the medium of a testimonial, to further the interests of those Institutions, it would have his approval. The Rev. Chancellor Law said, knowing as he did Mr. Cox's disinterestedness in all he had undertaken, he was inclined to believe that the establishment of a few scholarships in the College, to be called after Mr. Cox, would be most agreeable to him, and the number would of course depend upon the amount subscribed. Dr. Birt Davies said he knew that if the proposed subscription would enable them to found scholarships to be held by sons of medical men, nothing would be more agreeable to Mr. Cox. Such a design would be fully in accordance with that real nobility of character which he had manifested during the last thirty years, throughout which period he (Dr. Davies) had had the happiness of knowing him. If the testimonial took that shape, it would indeed be adding another laurel to the many which Mr. Cox had already earned from his fellow-townsmen. Mr. Osborn thought the better course would be to raise as large a subscription as they could, and leave the entire appropriation of it to Mr. Cox himself, well knowing, as they did, how he would dispose of it. They might rely upon it the public alone would be benefited by the testimonial. A conversation ensued upon the subject, after which a resolution in accordance with Mr. Osborn's suggestion was adopted. Subscriptions amounting to upwards of £500 were at once declared, and the proceedings terminated.

Quack's Logic.—The following amusing speech was delivered by a quack doctor dispensing his wares on a market-day at Bradford, in Yorkshire:—"My friends, I stand here before you independent, free, and untrammeled by connection with any sect, party, profession, or denomination. I thank God I am no human butcher or wholesale poisoner. I don't come to you with bad Greek and corrosive minerals, the one to charm you, and the other to send you to your long homes. No, my friends; you see these vegetables spread out before you; these are the produce of your own lovely hills, valleys, and green fields, and during the summer months many of them lend the charm of beauty to your meadows by their varied colours, and make the air balmy by their sweet fragrance. Not one of these, my friends, but possesses a life-giving essence or a health-restoring principle. The Royal poet, who danced before the ark, said, that man was wonderfully and fearfully made; and his son proclaimed the everlasting truism, that man was born to trouble as the sparks fly up—(John, give that lady a twopenny box of pills). Yes, my friends, notwithstanding your liability (another box, John) to disease and death—(Did you say a twopenny box, Sir? Another box, John)—here is a safe and speedy remedy (attend to that gentleman, John) for every disease 'mortal flesh is heir to.' My friends, you do well to supply yourselves while I am here—(two penny boxes, John). During the course of the ensuing month I am obliged, by previous arrangement, to visit the following towns—(twopenny box, John):—To-morrow morning I leave here for Sheffield (attend to the lady with the child in her arms, John), and from there to Chesterfield—(Cure the headache, did you say? Why, my dear fellow, one box would cure a horse's head, which is four times the size of yours)—then on to Derby—(give the child two pills at bed-time and continue the dose for a month). (Ah! poor man, your swimming in the head arises from long hours of labour at a sedentary employment; two large boxes, John); then I go to Hexham, Haltwhistle, Brampton, and Carlisle (my friends, your anatomical mankillers would transport me if they had the power. Thank God, I hold my authority from a higher power than that which deputes them to poison and kill by the knife); then I go to Penrith, Shap, Kendal, Lancaster, Preston, and Manchester."—*From a Manchester work, "The Language of the Walls," and Edinburgh Journal.*

Burning the Dead.—General Walker is quoted in the *Times* from a Nicaraguan Journal to the following effect on this subject:—"Who can estimate the satisfaction it would now afford the literary world to have preserved the ashes of Milton or Shakspeare! or who can guess the care and veneration with which the French would regard the ashes of Napoleon, or with what veneration Americans would guard the remains of Washington! It is truly to be regretted that all which was mortal of those illustrious personages is now undistinguishable from the common earth, or the remains of the carcass of some brute. But there is a point from which this subject should be viewed superior to any mere ideal phase of the case, viz., how the burying the dead in this country affects the living—and this is all-important. There is this advantage in burning bodies over burying them, that,

instead of permitting them to cause disease after death, the very act of burning purifies the air. It is supposed the great plague of London was arrested in its ravages by the great fire, which burnt the greater part of the city. One thing is certain if history is correct, that, although it raged with fearful violence immediately before, it ceased to exist almost immediately after the conflagration. It is now a common practice to fumigate a room in which a person has died, and doctors advise those who visit the remains of a person that has died of cholera, or any other contagious disease, to smoke a cigar or pipe—so great a purifier is fire. And, setting prejudice aside, as it is, after all, much more desirable to be consumed by fire after death than to rot and be devoured by worms, and as that conduces as well to the preservation of the living as to the retaining the ashes of the dead, we would favour the adoption of the custom in this country.

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, December* 20, 1856.

Causes of Death.	In the Week ending Saturday, Dec. 20, 1856. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 38°8						38°7
All Causes	1060	512	143	169	184	40	1268·8
Specified Causes	1045	509	143	169	184	40	1261·7
Diseases:—							
1. Zymotic Class	187	143	28	8	8	..	288·3
2. Dropsy, Cancer, and others of uncertain seat	40	8	4	16	10	2	47·1
3. Tubercular Class	162	63	52	37	10	..	181·3
4. Of Brain, Nerves, etc. ..	100	44	6	19	28	3	135·9
5. Of Heart, etc.	40	2	8	12	17	1	44·8
6. Of Respiratory Organs ..	230	119	17	33	49	12	284·8
7. Of Digestive Organs ..	61	23	7	18	11	2	56·1
8. Of Kidneys, etc.	19	3	4	8	4	..	13·8
9. Of Uterus; viz. — Puerperal Disease, etc. ..	7	..	3	3	1	..	9·9
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	14	6	3	3	2	..	8·6
11. Of Skin, etc.	7	4	1	..	2	..	2·5
12. Malformations	3	3	..	..	..	..	3·0
13. Debility from Premature Birth, etc.	23	23	..	..	..	..	30·4
14. Atrophy	32	23	..	2	7	..	25·3
15. Age	46	..	..	..	27	19	58·5
16. Sudden	17	11	3	2	1	..	16·2
17. Violence, Privation, etc. ..	57	34	7	8	7	1	55·2
Causes not specified.. ..	15	3	..	..	..	..	7·1

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THE following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the several Districts of London, for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	4	5	5	3	6
North	490,396	5	4	8	7	1	7
Central ..	393,256	1	4	4	8	1	3
East.....	485,522	..	6	17	10	4	12
South	616,635	..	5	8	10	2	9
Total..	2,362,236	6	23	42	40	11	37

TO CORRESPONDENTS.

An Ignorant Fellow.—Such mistakes will occasionally occur in the hurry of printing. It is only necessary to read *doubts* for *doubt.*

Mr. Pope.—Certainly.

The Report of the first meeting of the Army Medical and Surgical Society is unavoidably postponed.

Juvenis.—No verbal assignment of copyright is valid. To be valid the assignment must be in writing, and attested by two witnesses. An alien author may acquire a British copyright by *first* publishing his work in England.

Answers to several correspondents are postponed until next week.

London Sewage.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I beg, with great diffidence, to submit to you the following idea of a plan for diverting the sewage of London from the Thames. Let all the sewers remain as they are, but at each outlet opening upon the river let there be constructed a floating tank (covered over), to receive the sewage, and again to discharge it, by means of hose-pipes, into vessels provided for that purpose. These vessels (their holds, of course, completely covered,) could convey their contents, for the use of the land, up and down the river, along the coasts, to inland farms by canals, etc. etc., to be met at their destination by proper carts. Till it should be all required by the farmers, the superfluity might be conveyed beyond the mouth of the Thames, and discharged into the sea; the vessels performing this office to be provided with steam-power. If this plan should be found to be practicable, does it not appear to unite profit to the land, a comparatively moderate outlay, and a probability of soon being self-supporting? I am, &c. M.D.

Dec. 22, 1856.

COMMUNICATIONS have been received from—

Mr. H. Smith; Mr. Wilde; Dr. Macleod; Mr. Tidmas; Mr. Wharton Jones; Mr. Toynbee; Mr. Turner, Poonah; Mr. Carpenter; Dr. McCormac; Dr. Stokes; Dr. Jenner; Mr. Pretty; W.; M.D.; Juvenis; Dr. Harley; Professor Huxley; Mr. Johnson; Dr. Darling; Dr. McWilliam; Dr. Reynolds; Dr. Speer; Dr. Ramsbotham; Mr. Adams; Dr. Aikin; Dr. Russell; Mr. Prince; Mr. Jones; Mr. Maunder; Mr. Pope; H.; Curiosity.

APPOINTMENTS FOR THE WEEK.

December 27. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

Medical Society of London, 8 p.m.

Royal Institution, 3 p.m.: Juvenile Lectures—Professor Faraday—"The Gravitating Force."

29. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; Orthopædic Hospital, 3 p.m.

30. *Tuesday.*

Operations at Guy's, 1 p.m.

31. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 3 p.m.

Hunterian Society, 8 p.m.: Dr. Peacock "On Some Forms of Remittent Fever Prevalent in the Metropolis."

January 1, 1857. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.

2. *Friday.*

Operations at the Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

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